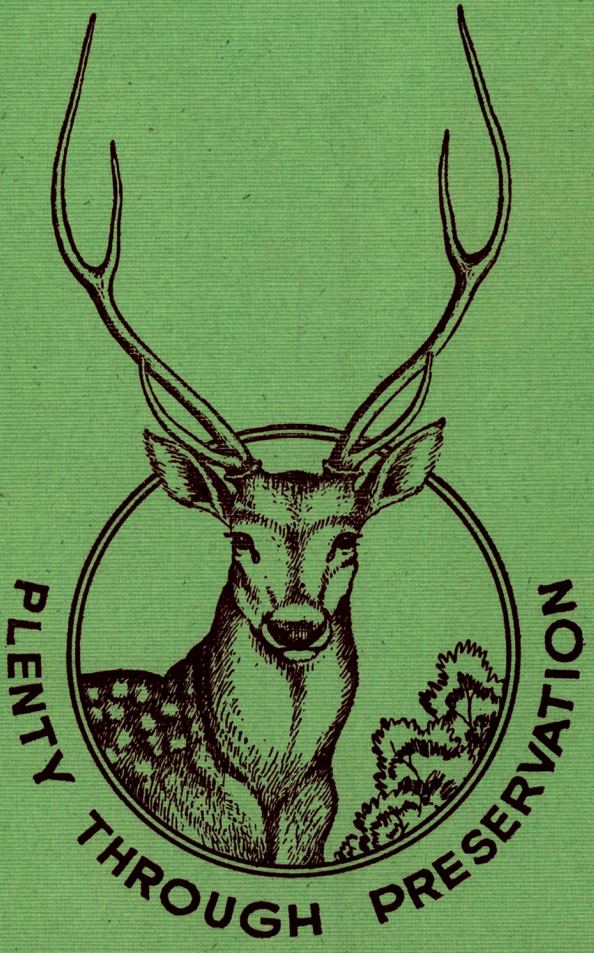
THE

Wild Life Preservation Society of Northern India

The CHEETAL



APRIL, 1960

VOL. 2 No. 2

Wild Life Preservation Society of Northern India

I. The aims and objects of the Society are as follows:

(a) To promote interest in the preservation and conservation of all forms of animal life among the youth of the country.

(b) To assist in enforcing the game and arms rules and to bring to the notice of the authorities any infringement of the same.

(c) To advise and help Government and the District authorities in the formation, maintenance and protection of Sanctuaries and National Parks.

(d) To raise funds for the carrying out of the above aims and objects.

(e) To carry on any other activities which will serve the above objectives, including publicity and propaganda and the issue of a journal.

(f) To assist members of the Society in obtaining shooting and fishing facilities and facilities for viewing and photographing wild life ete.

II. The Society has upto-date :—

Patrons	...	17	Ordinary Members	...	112
Life Members	...	24	Educational Members	...	11
Institutional Members	...	17	Students Members	...	55
Affiliated Members	...	3	Honorary Members	...	9
			Professional Members	...	27

The Society's funds stand, so far, at Rs. 10,500/- nearly.

III. **Office Bearers and Members of the Executive Committee.**

President :— The Maharaja of Nabha.

Vice-Presidents :— Shri P. D. Stracey, I.F.S., Executive Vice-President.
Shri R. L. Holdsworth.
The Maharaja of Kotah.
The Maharaja of Panna.

Honorary Secretary :— Shri Gurkirat Singh Mann.

Asstt. Honorary Secretary :— Shri Ram Prakash, P.F.S.

Honorary Treasurer :— Shri M. L. Khanna, P.F.S. (Retd.)

Members :—Shri S. P. Sahi.
Brig. Gambhir Singh.
Shri Tej Bahadur Singh.
Shri B. Mitchell.
Capt. E. G. Melvill.
Sardar Ranbir Singh,
Colonel Powell.
Shri Narendra Singh.
Major Mainwaring.
Wild Life Club, F.R.I. & C.
Dr. John C. Taylor, Sr.
Dr. Baini Prasad.
Brig. Ranbir Bakshi, M.C.
Shri S. S. Negi, P.F.S. (Retd.)
Shri T. S. Negi, I. P. (Retd.)
S. Vivak Singh Majithia, Gorakhpur.

Ex-Officio Members.

The Chief Game Warden, Utter Pradesh
The Conservator of Wild Life, Punjab.
The Deputy Game Warden, Himachal Pradesh.
The Divisional Forest Officer, Saharanpur.
The District Magistrate, Dehra Dun.
The Superintendent of Police, Dehra Dun.
The Divisional Forest Officer, Dehra Dun.

Sub-Committees.

(i) Wild Life Legislation.
(ii) Publicity.
(iii) Education and Propaganda.
(iv) Fishing.

Postal Address
7, Astley Hall,
Dehra Dun.

Telegraphic Address
"CHEETAL"
Dehra Dun.

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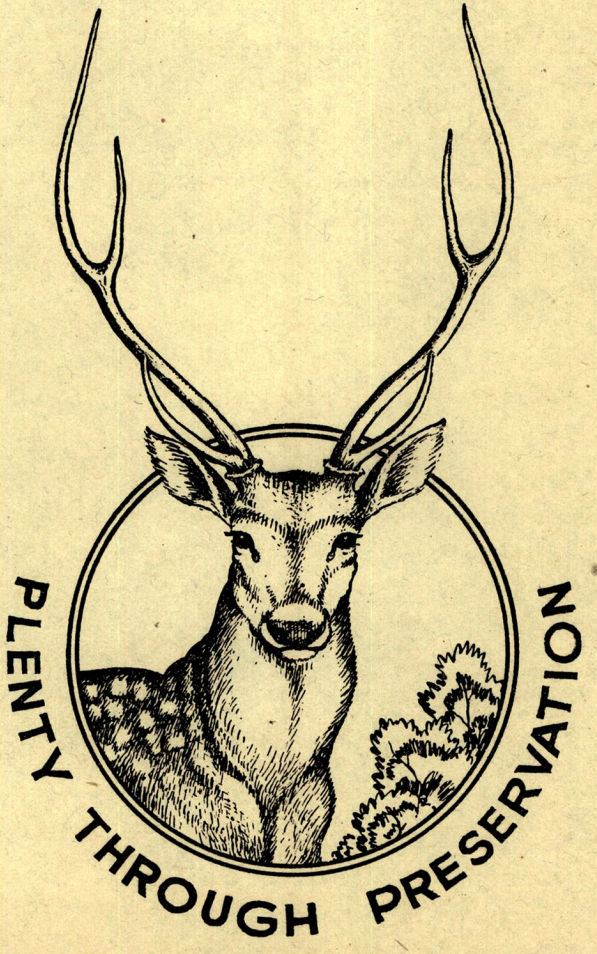

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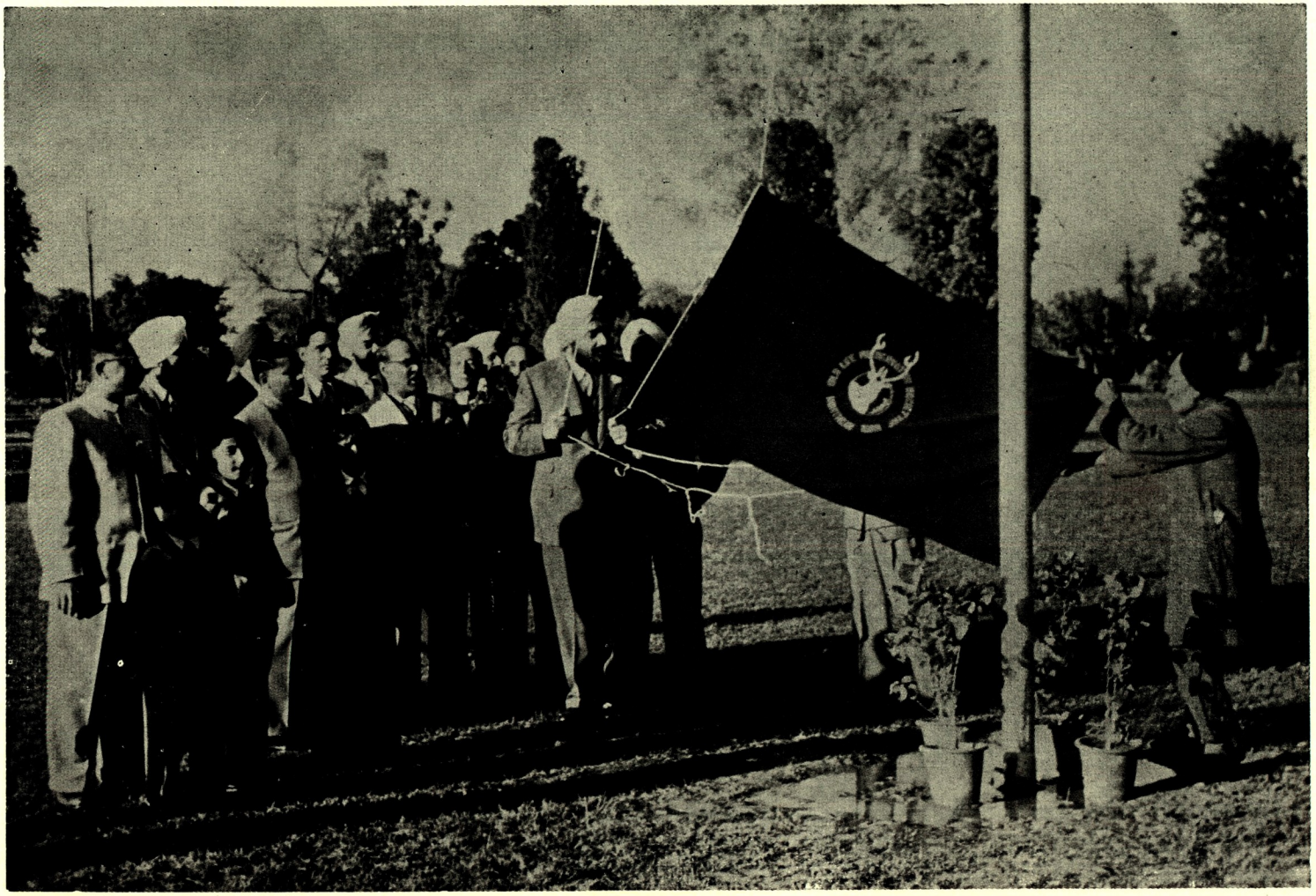


The President H.H. of Nabha raising the Flag at Nabha, December 1958.

Wild Life Preservation Society of Northern India

Vol. II | April, 1960 | No. 2

Ourselves

I. DEPUTATIONS.

During the rains of 1959, taking advantage of the presence at Dehra Dun, of the Governor of the U.P., Shri V. V. Giri, the Minister in-charge of Forests, U.P., Shri Syed Ali Zaheer and the Chief Conservator of Forests, U.P., the society waited in three deputations on these dignitaries of the U.P. Government.

The deputation to the Governor of the U.P. was personally led by His Highness, the Maharajah of Nabha, the society's President and a memorandum was submitted on behalf of the society. Our President received a sympathetic hearing and an assurance that whatever action was possible would be taken by the head of the State. His Highness, the Maharajah of Nabha followed this up a week later with a letter to the Governor's Private Secretary, but so far no reply has been received.

The deputation to Shri Syed Ali Zaheer, Minister-in-charge Forests, U.P. consisted of the Executive Vice-President and the Honorary Secretary of the Society. Here again, a written memorandum was submitted. The Chief Conservator of Forests and the Circle Conservators were present. The Minister went into the memorandum closely and questioned the Conservators present. Our representatives gave explanations where necessary.

The meeting with the Chief Conservator of Forests was at a tea in the Executive Vice-President's residence. Here the Regional Game Warden, whose headquarter is at Kotdwara, was present. After an informal discussion with the Chief Conservator of Forests, mainly about the difficulties being experienced in regard to the obtaining of shooting licenses and shooting blocks as the result of the recently introduced new procedure, certain points were put down in writing and given to him.

The following covers the points raised in all three deputations :—

Wild Life in the U.P.

The first point to know about the U.P. is that it has no Wild Life Board, while most of the other States of India have formed such boards, in response to the directive of the Indian Board of Wild Life, issued soon after its formation in December, 1952. The absence

of a wild life board, consisting of official and un-official members who can advise the Government on all matters concerning wild life management, often results in unilateral and, in some cases, incorrect action by the authorities. Examples can be quoted.

With the existence of a State wild life board, coupled with recognition of a society such as ours, Government can, at all times, be certain of sound advice and of public opinion in support of measures for wild life.

The sudden withdrawal of Annual Small Game Permits in the Dehra Dun and Saharanpur Divisions during the last shooting season, hit the local sportsmen hard. The society had represented against this and the deputations again urged revival of the Annual Small Game Permit System. Actually, the society had suggested abolition of the Annual *Big Game* Shooting Permits.

The centralisation of the drawing for Shooting Blocks at Lucknow has been widely criticised and the deputations represented against this. The society had merely recommended that, as far as possible, drawing for shooting blocks should be held in the headquarters of the D.F.Os.

Special Game Protection Staff.

It has been recognised that forest departments, heavily over-burdened as they are, are unable to give necessary protection to wild life in their charge, let alone carrying out sensible and scientific wild life management. Special staff for the protection of game has been recommended by the Indian Board for Wild Life. In the U.P. the Game Protection Circle, consisting of one Conservator, five D.F.Os. and other staff was created in 1956. This circle was doing good work and the general public had become encouraged.

In 1958, in the middle of the financial year, the staff was reduced to a Chief Warden of D.F.O. status instead of a Conservator of Forests and three Regional Game Wardens of Assistant Conservator of Forests rank instead of five D.F.Os., as previously. Along with this reduction in the superior staff, a number of posts of forest guards were, however, created. It is felt that this reduction in the superior staff has told on the effectiveness of the work of the game protection branch of the U.P. forest department.

Moreover, the game preservation organisation is confined to three circles only and elsewhere wild life is left to look after itself, except for the normal protective machinery furnished by the staff of the forest department. It was pointed out that in the Punjab there is a special game preservation Staff under a Conservator of Forests for the areas outside the reserved forests, covering the whole State. In Bombay there is a very large organisation, consisting of all the forest officials and where these are not available the civil and police department repre-

sentatives, supported by a number of Honorary Game Wardens, under a Conservator of Forests.

Legislation.

In the U. P. there is practically no protection for wild life in the areas outside the reserved forests, where the Wild Birds and Animals Protection Act should apply. The Bombay example of new legislation of an embracing nature, to cover both reserved forests and non-reserved areas, was recommended by the Indian Board of Wild Life to all the States in India and several States have overhauled their legislation. In this connection, the deputations drew attention to the suggested close-seasons etc. of the society, which could be the basis for overhaul of the legislation in the U.P.

Forest Management.

The Sanctuaries and National Parks of the U.P. are subjected to heavy exploitation, grazing etc. The only activity prohibited is shooting and for all intents and purposes, sanctuaries and national parks are no different from any other forest blocks. Game in these areas, except in the Corbett National Park which is comparatively isolated, is very scarce on the whole. It is considered that this is due to the great disturbance caused by intensive forest operations and the poaching which inevitably follows such operations.

It was suggested that the principle of some sacrifice in revenue be accepted in regard to sanctuaries and parks and that selection fellings of a light nature be substituted for the, at present, intensive fellings going on.

Fish Protection.

There is, apparently, no law to protect fish in the Gram Panchayat portions of the streams and rivers debouching from the hills. These rivers are being exploited for commercial fishing by the Panchayats, but it is not known whether they are under any restriction regarding the use of small-size nets, which decimate young fish and thereby threaten the stock of fish and such damaging practices as *bandhing* of streams and de-watering them so as to remove all fish, bombing of pools, poisoning of pools etc. There appears to be no close season for fish in these rivers. Attempts to obtain information regarding the fishing laws in these areas have been made, but without success.

"The Cheetal".

It was submitted that the whole of Rajasthan and Andhra Pradesh Forest Departments have been subscribing to the journal, whereas the Uttar Pradesh has ordered only two copies, one for the Chief Conservator of Forests and the other for the headquarters Conser-

vator. It was pointed out that subscription to the journal, which is the only one of its kind in India, is not high and it was urged that all D.F.O's subscribe to it on Government account.

Wild Life in the Himalayas.

This is being decimated. Recently as many as 100 skins of young *bharal* (blue sheep) were reported from Pipal Koti in Garhwal. Very little protection is being afforded to the valuable fauna of the U.P. Himalayas. It was urged that the wild life branch of the U.P. forest department be expanded to cover the hill areas, as well as other districts where wild life is present although not in the same quantity as in the three circles now being specially protected.

Honorary Game Wardens.

There are no Honorary Game Wardens from the side of the public to assist the local authorities in the U.P. The Society had recommended some time ago that Honorary Game Wardens be appointed and this was urged again.

Procedure for Obtaining Shooting Permit Blocks.

The new procedure has adversely effected the public. Apart from the fact that draws for shooting blocks are held in Lucknow, there is the heavy levy of Rs. 5/- per block applied for. Even if it is not possible to restore the drawing for shooting blocks to the headquarters of the D.F.O., as suggested by the society, it is requested that the fee imposed i.e. Rs. 5/-, be applied to *one* application irrespective of the number of blocks applied for.

Society's Proposed Shooting and Fishing Rules.

It was urged by the deputations that the proposed Shooting, Fishing and Sanctuary Rules, which were submitted long ago to the authorities by the society be sympathetically and seriously considered before revising the rules of the U.P. Forest Department. A copy of the society's proposals was again submitted along with the memorandum.

Society's Proposed Revised Constitution.

At the end of the journal will be found the society's proposed constitution which will be adopted at a special General Body Meeting to be held in April 1960. It is but natural, with a new and growing body like ours, that our ideas as to the type of organisation should change and evolve. In drafting the society's permanent constitution we have studied that of the Bombay Natural History Society and have borne in mind the peculiar nature of such all-India bodies with membership scattered all over India. The peculiar feature of our constitution is the provision for Branches in the vorious regions.

2. BALANCE OF NATURE.

Snakes and Ladders Game.

We are all familiar with the children's game of 'Snakes and Ladders': in this game, on the throw of dice we may go up a ladder thereby advancing our position, whereas if the number falls on a square on which the head of a snake occurs we are taken down the snake to its tail, thereby being set back in our progress to the finish. This exciting game of sometimes going up a ladder and sometimes going down a snake, according to the throw of the dice, has been a children's favourite for many generations.

Adapting this game to illustrate the 'balance of nature' by giving reasons for promotion *up* a ladder or demotion *down* a snake, in the shape of helpful or destructive acts where wild life is concerned respectively, we have produced a new and interesting variation of the old 'Snakes and Ladders' game to educate children in knowledge of wild life. Going for our examples to the Indian countryside, we have been able to compose an interesting and instructive set of coloured pictures which bring home the lessons of the balance of nature to instruct and educate the child in a subtle, but nevertheless effective manner. The board is made up of squares in the ordinary chess-board pattern and contains a number of squares, twenty of which are decorated with coloured pictures illustrating the activities of man, both destructive and beneficial, towards wild life in India. Each picture will have a caption below it to further explain the meaning. There are 10 snakes and 10 ladders and between them they represent most of the harm that is being done to wild life in India and the help which can be given.

Inevitably, there has been a certain amount of repetition, but this has been unavoidable and is probably all to the good, when the necessity for reiteration in the matter of teaching the young is appreciated. The game was displayed at the wild life pavilion in the World Agriculture Fair held at Delhi. It is hoped that we can produce and sell the game, either directly or through some firm which manufactures children's toys, thereby earning revenue for the society while educating the young. The captions are given here. This is but the first of what we hope will be several instructive and entertaining means of carrying the message of wild life preservation to the youth and particularly the *rural* youth of India, in whose hands lies the future of our wild life.

SNAKES

Spare your pigs and save your goats from the panther.
Don't kill panthers indiscriminately: less panthers more pigs to damage your crops.

Don't kill young crocodiles : they eat fish-predators.

Don't kill egrets : they rid cattle of ticks and eat fish-predators.

Don't kill python : they feed on rodents and thereby guard your crops.

Don't trap or shoot excessively game birds, otherwise lesser carnivora will attack your poultry for food.

Don't bomb rivers : your fish-wealth will dwindle.

Don't harm starlings and rosy pastors, black birds, blue-jays etc. : they feed on insects injurious to crops.

Don't kill tigers indiscriminately : they feed on deer and pigs and thereby save your crops.

Indiscriminate killing of deer, which are food for tiger, creates cattle-lifters and man-eaters.

LADDERS

Control jackals, civet cats etc. : they eat jungle-fowl and poultry.

Shoot blue-rock pigeons and kill sparrows : they eat your grain.

Don't kill rat snakes : they catch mice and protect your crops.

Protect the rosy pastor : it controls locusts.

Trap monkeys and parrots : they damage orchards and vegetable gardens.

Protect hawks and *shikaras* : they keep down birds and rodents injurious to crops.

Don't destroy tigers and panthers indiscriminately : they control deer and pigs.

Use big-mesh nets and spare small fish for the future.

Trap crows : they spoil vegetables and eat the young of useful birds.

Protect the monitor lizard (goh) : it eats harmful insects and snakes.

3. THE CORBETT MEMORIAL PRIZE

An approach was made some time ago to Miss Maggie Corbett, the sister of the late Jim Corbett, for the donation of a prize in memory of her famous brother. Her response was prompt and she sent us Rs. 500/-. The society added an equal amount and formed the Corbett Memorial Prize on Wild Life, the details of which are given in this circular letter, which, it is hoped, will reach all schools in northern India to stimulate interest in the competition.

The Director of Education,
(All States of Northern India).

Subject : **Corbett Memorial Prize on Wild Life.**

Dear Sir,

To commemorate the memory of the late Jim Corbett, the renowned sportsman and protagonist of wild life conservation and to encourage interest in wild life in India, the Wild Life Preservation Society of Northern India has, with the kind help of Miss Maggie Corbett his sister, decided to award an annual prize for the best piece of practical work done to promote wild life, to any student or group of students of the senior classes (IX, X and XI) of any school in Northern India.

The project to be carried out may consist, among other similar subjects, of one or more of the following :—

(i) Observation of two pairs of birds throughout their complete breeding cycle.

(ii) Photographing wild life (at least two subjects).

(iii) Measuring, recording and taking plaster casts of foot-prints of two wild animals or birds.

(iv) Observation of the behaviour and habits of at least two species of wild animals or birds over a period of nine to twelve months.

(v) Putting up nesting boxes, planting fruit trees, making bird-baths, making dams for storage of water for animals and fish-breeding etc.

Any project submitted for the award of the prize should be the work of an individual student, or of a group of students not exceeding five and should be attested as such by the head of the institution.

All entries should reach the undersigned by the 31st August, 1960. The prize will be awarded in October, 1960.

Students or institutions requiring any further details of the subjects mentioned above may write to the undersigned.

I shall be very grateful if you will bring the above details to the notice of the District Inspectors of Schools under you, for wide circulation among schools. I send

200 copies of this letter, which may kindly be circulated to schools in your jurisdiction. If more copies are required, the undersigned will be glad to supply them.

Thanking you for assisting us in this effort to propagate interest in wild life.

I am, yours faithfully,
Honorary Secretary,
Wild Life Preservation Society of Northern India.

7, Astley Hall,
1st August, 1949.

4. SOCIETY'S NEWS.

The last year has been a busy one for the Wild Life Preservation Society of Northern India. Each of the four sub-committees—Legislation, Publicity, Education-Propaganda and Fishing were busy and the two new committees Fishing and Education-Propaganda got into their stride.

The Legislation Sub-Committee dealt with the Punjab Wild Life Bill, the comments of the Rajasthan Wild Life Board on the society's proposals and several other matters, such as the close season for blue-rock pigeon, destruction of lizards, the new procedure for obtaining shooting permits in the U.P., etc.

The Fishing Sub-Committee considered what action was necessary to eliminate the excessive destruction of fish in the Ganga on the east and the Jamuna and its tributaries on the west and the possibility of taking over stretches of these waters on lease for its members.

The Publicity Sub-Committee, whose main function is to produce the "Cheetal" magazine, has brought out greeting cards, note paper and a new insignia for the society. It has also printed 2,000 copies of a brochure for distribution among the public to inform them of the work of the society.

The Education and Propaganda Sub-Committee is bringing out the "Snakes and Ladders—Balance of Nature" game (which was exhibited at the World Agriculture Fair in Delhi) and was also busy with the organisation of the Jim Corbett Memorial Prize for Wild Life, details of which appear here.

Taking advantage of the presence in Dehra Dun of the Governor of the U.P., Shri V. V. Giri, the Society prepared a memorandum on the status of wild life in the U.P. which was presented to the Governor by our President, H.H. of Nabha. Later, taking advantage of the presence of the Minister-in-charge of Forests, U.P., Sri Syed Ali Zaheer, a similar memorandum, but covering more ground, was submitted to him. A similar memorandum

was submitted to the Secretary, Forest Department. Some members of the Committee with the Honorary Secretary and the Executive Vice-President also met the Chief Conservator of Forests, U.P. and had a frank discussion with him of conditions in the U.P. and in particular the new procedure for obtaining shooting permits.

More than forty forest officers from all States of India who attended a liaison meeting of the Forest Research Institute at Dehra Dun were entertained to tea by the Executive Committee, when the opportunity was taken to inform them of the work of the society and to obtain the support and interest of the forest departments in India. A feature of the occasion was a talk on wild life in general and on the status of game birds in India and America in particular by Dr. Gardiner Bump of the U.S. Fish and Wild Life Service, who is now in India collecting suitable game birds for implanting in his country.

The society's publications were exhibited and Hindi and English handbills advertising the society and a large number of brochures giving details of our organisation, were distributed free to visitors at the wild life pavilion of the World Agriculture Fair at Delhi last cold weather.

A revised constitution of the society is ready. It has been now proposed to drop the word 'Northern' and to expand the organisation into an all-India body. There has been a considerable volume of opinion in favour of removing anything savouring of distinction between north and south as being both invidious and unnecessary, since the society's work is not confined to wild life in northern India alone. Even if it is not possible to immediately expand the organisation in the more distant parts of the country, the society now stands for a united front on all wild life problems in India and expects to eventually draw towards it the support of all those interested in wild life and its preservation, particularly the foresters of India who are the traditional custodians of wild life in the country.

Editorial Notes

A WELCOME NOTE.

We welcome the contribution of an article on the activities of the Wild Life Preservation Organisation of Uttar Pradesh forest department, written by the Chief Game Warden of that State, both as a sign that our efforts for wild life are arousing some interest and also because coming as it does from the head of that organisation, it must contain authentic details of the work being done. We earnestly invite similar notes from Chief Wild Life Wardens or Conservators incharge of Wild Life in other States.

The work that we have embarked upon, i.e. the saving of India's wild life and the production of a journal like the "Cheetal" as one of the instruments of this work, can not be accomplished without the active assistance and co-operation of State forest departments. It is in the thorough implementation of the democratic principles to which the nation is dedicated and which allows free and frank discussion of India's wild life problems, that the future of that wild life lies. We confidently expect Government agencies of all kinds to appreciate that any frank criticisms of wild life measures, or the lack of them, are intended solely to focus attention on the urgent need for taking intensive action to save the wild life of India.

We are aware that there are persons who feel very strongly on wild life but who are reluctant to express their views, either because of national, political or personal reasons. But we are confident that as time goes on, the value of the type of activity which is reflected in the writings in the "Cheetal" journal and the tone of what we write, will be more and more appreciated as being frank expressions of a democratic nature and in the best long term interests of wild life and that it will attract all lovers of India's wild life to express themselves freely on the forces which operate to make or mar its future.

2. END OF AN ERA.

The startling news in the press of the termination of the shooting leases of the game associations of North Bengal means the virtual sounding of their death knell and represents almost the passing of an era, for the formation of these associations goes back to more than 40 years. Tea planters were some of the great sportsmen shikaries of the past and it was natural for them to band themselves into associations for their mutual interest in sport and for the preservation of wild life. In the British period they were favoured organisations and were given leases of the shooting and fishing rights of the reserved forests and rivers in their localities.

The Darjeeling, the Teesta-Torsa and the Torsa-Sankosh Game Associations were all flourishing organisations which did a lot for the preservation of wild life in North Bengal, at one time a sportsman's paradise. Similar associations have existed elsewhere—notably the Nilgris Game Association (which is probably the oldest of the lot), the Palni Game Association and the Peermade Game Association in the South and recently two Assam organisations.

Planters as individuals have always been sporting and friendly people, though in organised bodies they have tended to be exclusive. In the case of these associations, however, anybody from the local tea garden doctor babu to the local official could become a member and in fact that was the only way he could shoot in the locality. Through the members of the associations and their activities, a close watch could be kept on all nefarious practices and on poaching.

The forest officers used to work in very well with these sporting associations of which they were members. The help rendered was mutual and to the benefit of Government and to wild life. Since independence, however, a change had crept into the relationship between the forest departments and these associations. It is likely that a tendency developed to consider almost purely exclusive European organisations as somethings which could not be tolerated. Indian forest officers as a class are no longer the sportsmen that their predecessors were and to that extent they have less interest in the *direct* activities of these organisations, which is *shikar*. It is probable that it was felt that the associations were doing very little good in return for the enjoyment of exclusive rights of shooting and fishing. It is also possible that the question of loss of revenue involved in the settlement of shooting and fishing rights with the associations at concessional rates has weighed heavily with the Forest Department of Bengal in taking the decision they did. We recollect that some years ago matters came to a head but the leases were eventually renewed for 3 years, after certain changes in the conditions.

It is surprising, therefore, to learn that it has now been decided to terminate the shooting leases in North Bengal. The immediate result of the decision has been a drop in the membership of the Darjeeling Game Associations by 85%, as stated by Mr. Avari, the Secretary of the Game Federation of Bengal. According to him poaching is now bound to increase and he is of the opinion that if the Game Associations and Government can work jointly, much better results would follow. "There is definitely need for a complete change in attitude by both the Governments and Associations", he says.

This society is emphatically of the opinion that the work of game associations, such as the ones under reference, is not yet over in India. In fact, it has only just begun for the direct and indirect protection of conservation of wild life. These associations, with the great interest of the local planters and others and the backing of the State forest departments can do

very good work in propagation, education and publicity of wild life, in addition to directly controlling the poaching of wild life in the neighbourhood.

The only difference between such associations and the Wild Life Preservation Society of Northern India, is in regard to leases for the shooting and fishing rights of their respective regions. Our society is pledged to work for wild life on the broad front of creating public opinion and carrying out publicity, propaganda and education in favour of wild life. Surely there is a future along these lines for the erstwhile game associations of India?

[Note :–After the above was written we have learnt, with great satisfaction, that, as the result of the intervention of the Chief Minister of Bengal, that broad-minded and far-seeing statesman Dr. B.C. Roy, the North Bengal sporting associations have been given a new lease of life. We congratulate both the Government of Bengal and the organisations in question. We would urge the latter to come more directly into the main stream of conservation of wild life by adopting publicity, propaganda and education as part of their programme of activities.]

3. WILD LIFE EXHIBITION IN THE WORLD AGRICUTURE FAIR, NEW DELHI.

Readers of the "Cheetal" will be interested to know that in the World Agriculture Fair, which was organised by the Farmers' Society in New Delhi during the cold weather of 1959, there was a wild life exhibition alongside the forestry and soil conservation exhibitions.

These exhibitions were organised on a grand scale, as befitting a world agriculture fair held in India for the first time. It is no secret that the idea is largely the 'brain child' of the Central Minister for Co-operation, Dr. Punjab Rao Deshmukh. The wild life exhibition was organised by the Indian Board for Wild Life which, however, had the co-operation and assistance of various organisations, such as the Bombay Natural History Society, the Wild Life Preservation Society of Northern India and the Wild Life Club of the Forest Research Institute and Colleges, Dehra Dun. In addition State forest departments had their own exhibits.

For our part, we endeavoured to supply material on wild life of a publicity, propaganda and education nature, within the limits of our finances and ability. Our "Cheetal" magazine was displayed and sold. One thousand copies of our brochure and five thousand handbills were distributed. The wild life 'Snakes and Ladders' game, depicting the balance of nature, was displayed. The Wild Life Club of the Forest Research Institute and Colleges displayed two large coloured maps of India showing our important animals and birds, also charts showing important individual species and their distribution. Many fine trophies were lent for the exhibition by ruling princes and others. A white tiger was also exhibited.

4. YOUTH AND WILD LIFE

In India the association of youth with wild life is of a very minor and superficial nature. In the rural areas wild life is pursued and destroyed, while in the urban areas it is more or lesss the same. Little boys with catapults and air guns take heavy toll of all small forms of wild life. A few, as they grow older, become interested in shikar. A still smaller number may eventually, through the influence of parents, relations or teachers, grow up into amateur naturalists.

For this state of affairs, our schools are largely to blame. With the notable exception of one or two institutions, particularly those which fall under the category of 'public schools', there is no effort being made on the part of school authorities to introduce their charges to wild life, except on the very elementary level of butterfly collecting etc.

As the youth of India goes into the college stages, they remain completely ignorant and cut-off from the charm and interest which wild life can afford. In spite of much that has been written and said on the subject, the educational authorities continue to set very low priorities to this important subject, on which the future of India's wild life on the one side and the understanding of its role on the other, depends.

A suggestion was recently made to us that in connection with the N.C.C. and A.C.C. camps, which are now held regularly all over the country, the cadets should be introduced to wild life in the neighbouring forests and sanctuaries. Moreover, they should be asked to carry out 'shramadan' in sanctuaries and parks in the shape of making or repairing roads, clearing boundaries, planting trees and crops, creating waterholes and carrying out soil conservation measures, all of which have their uses in wild life conservation management. The idea is an excellent one and is strongly recommended to the authorities in charge of the N.C.C. movements in India. Forest officers in charge of sanctuaries and national parks may also take up the idea and invite the local cadet training units to camp nearby and to carry out this work, in return for which opportunities for observing wild life should be freely given.

It is only by such a dynamic approach to the question that we can break down the wall of ignorance and apathy which surrounds our wild life. Comparisons are described as odious, but any reader of the many American magazines on wild life will be struck by the immense canvas of youth's close contacts with and participation in, the conservation and improvement of that country's wild life and natural resources, while nothing is being done in India.

Destruction of Flora & Fauna of U. P.

By
M. Hakimuddin, E.A.C. Forests (Retd.)

The indiscriminate destruction of forests and wild life which is going on in this state since the abolition of zamindari is alarming and unpatriotic. The rapid removal of the vast private forest cover in every district, has not only raised the prices of fuel and charcoal to the level of food grains of a decade back, but it has deprived the wild life of their natural protection and exposed it to the mercy of poachers, irresponsible villagers and licencees, who were liberally armed after independence. There has developed a new lucrative trade for gun-men, operating from *adhas*, carts, tractors, and lorries exporting forest produce and very often carrying poachers.

A night's work with a strong torch or search-light, a gun with slugs and any conveyance which is easily available, enables a poacher to get rich rapidly through shooting a few animals daily. Sold wholesale, with the skin on, the smaller animals such as black-buck, pig, *cheetal and para*, fetch up to Rs. 50/- each according to weight. The bigger animals like nilgai, sambhar and gond fetch up to double the above amounts. Persons thus easily earn at times from Rs. 100/- to Rs. 400/- through the cultivators. This has encouraged even respectable licence holders and motor owners to take to this trade, directly or indirectly. Guns, rifles and search-lights are given on hire to poachers, at from Rs. 10/- to Rs. 25/-. With decrease of wild life in private lands, the poachers diverted their attention towards the Govt. reserved forests and in a short time regular poaching started along the outer forest boundaries, including the sanctuaries. Catching the bold poachers armed with guns at night in the forest with little hope of adequate evidence is no joke and the staff has preferred to either ignore or profitably connive. During the rains, regular gangs of poachers camp for days in out of the way places in empty forest buildings. They shoot and fish indiscriminately, dry the meat and fish on fires, carry it on heads, ponies and mules and find quick sale in the villages at half the market rates of meat, which is nowhere less than Rs. 1/8/- to Rs. 2/8/- per seer.

Thus at the present rate of destruction, nothing seems likely to be left in all the accessible areas, to wheeled-traffic at least. A motor drive along the outer boundary roads of reserved forests near villages anywhere for a few hours will reveal, through the putrefying smell in many cases, the rotting carcass of a wild animal having died of gun-shot wounds. About half the animals hit by slugs go some distance and die, to rot uselessly.

I had the opportunity for 12 years of touring over half a dozen forest divisions annually, from Gorakhpur to Dehra Dun, between the years 1913 and 1930, being on the teaching

staff of the U.P. Foresters Training School and the Ranger College at Dehra Dun. Thus I had the unique chance of seeing repeatedly, year after year, big herds of hundreds of black-buck and dozens of nilgai in every waste land of every district, visible from roads and trains where none are to be seen now! Similarly, in all the burnt grassy blanks in every range of every division, from mid winter to summer, big herds of from 100 to 500 *cheetal*, and dozens of *sambhars*, pigs, *kakars* and *paras* could be seen every evening and morning, while in the *tarai* areas, herds of over 500 gonds were common near swamps. To-day 50% of those very places remain empty and the rest may have 10% or so of the previous numbers. The rest have been finished by the new settlers, farmers and poachers.

The remedy does not merely lie in having a big staff for the protection of wild life. It equally lies in frustrating the designs of poachers, by putting effective obstacles to their movements, laying traps to catch them and smashing them with different punishments like cancelling their licences, confiscation of all arms, conveyances and implements used in committing the offences and fining heavily for every animal shot. In case of non-payment of fines, prosecution and six months rigorous imprisonment to the whole party should be awarded. It is sadly disappointing to see Government with the power to make laws and with large well trained police forces, yet unable to check the increasing crimes against wild life.

The following are some practical suggestions to protect wild life:—

(1) Closing all forest produce export during night (as in the past).

(2) Putting up 1″ thick, iron-chain gates, fixed on iron rail posts, on all roads entering reserved forests and locking them daily from dusk to dawn. This should be made known to the public by posters and beat of drum occasionally, in local bazars and villages.

(3) Putting up effective obstacles on either sides of the above gates so that no wheeled traffic can by-pass them, such as big stone or wooden posts buried firmly in the ground, trenches 2½′ x 2½′ x 3′ dug in a staggered manner and sowing *Capparis horrida* seed in two rows, 3′ apart, early in the rains along the outer boundary to make a thick, thorny wall.

(4) Occasionally checking carts and lorries coming out of the forest, particularly when suspicious looking persons are found in the vehicles, for a poacher with gun or cheetal deer may be hidden under the forest produce and punishing such offences with very heavy fines and confiscation of the conveyance and implements.

(5) Abolish the Annual Big Game Permit, as that facilitates destruction. It was introduced when game was plentiful.

(6) Prohibit entirely all shooting of birds and animals by driving or beating. This does not suit the times of depleted game conditions.

(7) Non-gazetted forest staff and forest contractors should take out shooting permits, like others. In fact, such persons enjoy far more freedom and facilities than even exempted officers. Their residences must be raided on reasonable suspicion and on the first offence a fine of Rs. 100/- per animal should be awarded and the arms licences cancelled permanently. On repetition, dismissal of the forest officer and black-listing of the contractor should be rigidly enforced.

(8) For shooting in close season, females and more animals than permitted, fines of Rs. 100/- should be imposed, with double the amount in sanctuaries.

(9) No restriction should be placed on the lengths of horns or the size of tigers, as none can judge accurately before shooting. If the sportsman shoots an undersized animal, it should count towards the number permitted.

(10) Have a sanctuary in a centrally situated range in every division.

(11) One Asst. Game Warden of the rank of a Ranger, or a Sub-Inspector of Police with two armed constables with a jeep, should be supplied for every two divisions. There should be a Game Warden of D.F.O's. rank in every circle. Once a week, they should check sportsmen's camps and lay in wait at likely, outer boundary exits for poachers.

(12) Half the sale proceeds of the confiscated articles should be given to staff, as reward for more incentive. On the contrary, if they are caught taking bribes, staff should be prosecuted and dismissed.

[*Editor's Note:*—Mr. Hakimuddin needs no introduction to the older generation of foresters and sportsmen in the U.P. As a slayer of leopards and tigers he probably had no peer, not even Corbett equalling his bag. He is the author of a book, written in Hindi, on shikar.

His description of the once plentiful state of game in the U. P. will be echoed by many who shot and camped in its forests in pre-independence days. His suggestions for the protection of wild life are valuable but some of them have been made before. What they emphasise is the need for a much more massive effort than is at present being exerted for stamping out poaching and reckless destruction of wild life, particularly of 'meat' animals, in the U. P.

We venture, however, to question two of his suggestions—Nos. 6 and 9—not because we do not share his conservation enthusiasm to the full, but because these suggestions may lead to exactly the abuses they are designed to prevent.

If we forbid beating for animals other than 'meat' animals and birds we are encouraging shikaries to adopt the very methods that are so much to be condemned, namely shooting from vehicles etc. We consider that our Society's suggested rule limiting the bag without completely forbidding beating, meets the case. In the case of game-birds an unscrupulous poacher from a car may bag in an hour more jungle fowl than one might get in a day's beating.

If we withdraw the rules governing the size of shootable heads for deer or length for tigers, we shall encourage unscrupulous shooting at immature animals. A sportsman should not pull the trigger unless he is sure that the target is a warrantable head or a mature animal. It is up to him to learn what a warrantable head looks like.

We agree that uuwarrantable heads and immature tigers killed should be included in the bag allowed.]

Review of the Annual Progress Report of the Game Department of Himachal Pradesh for the Year 1958-59.

The Himachal Pradesh Game Department was established in March 1957 with a skeleton staff of Game Foresters and Game Watchers under the control of the Dy. Game Warden, Shri K. L. Mehta, who had been in the Punjab Game Department and who was transferred to the Himachal Pradesh along with the formation of the State. The Game Department's jurisdiction is over the 12 forest divisions of the State as well as the privately owned land forests.

Himachal Pradesh is situated within the Western Himalayas and touches Kashmir on the west, Tibet on the north, the U.P. in the east and Punjab on the south and east. It is entirely a hill-state. The area of the State is some 11,564 sq. miles, of which more than 47% is covered by forests. Altitudinal ranges vary from the Siwaliks bounding the outer Himalayas to the snow-line and as can be imagined, the fauna is very varied.

The animals range from the sambhar and spotted deer to the bharal, ibex and thar. The musk-deer is found and in the Bushiar State it was a royal animal, the ruler of Bushiar getting a share of all musk-deer trapped.

The tiger is almost extinct and is confined to the outer ranges of the erstwhile Sirmur State. Of the Kashmir Stag, there are hardly a dozen left. Similarly the musk deer and

ibex have been greatly reduced in recent years. Snow-leapords and the beautiful pheasants, tragopan and monal, have also become rare and are now given full protection.

Himachal Pradesh having been formed from several small States, such as Bushair, Jubbal, Bilaspur etc., it was but natural to expect that there would be no homogeneity in their hunting and shooting regulations. The Indian Forest Act and the Punjab Wild Animals and Birds Act were applied after merger but it was not until the organisation of the Himachal Pradesh Game Dept. in 1957 that these acts become somewhat effective. New shooting rules and the introduction of the Shooting Block system in 1958 have been features in recent years. Bag limits have been introduced as well.

The fur trade in wild animals and birds as skins and trophies is heavy, the famous Lavi fair in Rampur Bushahr being not able as a market for these animal-parts, which, were generally illegally killed. Rules were introduced by the administration in 1958 to prohibit the possession of such trophies and skins without an owner's certificate. During the year under report, the following skins and animals etc. were received by Government and private tanneries.

1.	Spotted-deer ...	42	(29)*
2.	Sambhar ...	27	(28)
3.	Panther ...	15	(28)
4.	Musk-Bali ...	2	(2)
5.	Wild Goat (Ghooral) ...	20	(39)
6.	Barking deer ...	41	(52)
7.	Bear ...	1	(14)
8.	Bharal ...	8	(2)
9.	Foxes	1	(12)

* Figures in parenthesis indicate numbers of animals shot in the previous year.

Monkey-capturing rules were introduced in 1958, whereby a licence fee of Rs. 15/- is charged from monkey-capturers with a royalty of Rs. 2/- per monkey captured and exported.

The following is a statement of offences against wild life.

(a)	Total cases reported ...	175	
(b)	Total cases compounded ...	105	
(c)	Total cases filed ...	18	
(d)	Total cases pending in court ...	11	
(e)	Total cases decided by court ...	5	(4 fined Rs. 86/-, 1 acquitted).
(f)	Total cases pending with Dept. ...	36	

It would have been helpful if figures for previous years were given.

Sixtyeight shooting licences were issued during the year and the main species shot were chakor 20, jungle-cock 29, partridges 25, ghooral 10, barking deer 9 and jungle-fowl 9.

The revenue from shooting licences was Rs. 3070/-, and the compensation realised on account of illegal shooting was Rs. 900/-.

The total income during 1958-59 was thus Rs. 3,970/- as against an expenditure on the whole scheme of game protection of Rs. 27,300/-. This must be one of the few States in India where the expenditure far outweighs the income from wild life.

About 40,000 crop protection gun-licences have been issued in the State. There is one gun for 26.2 acres of crop land, which must easily be the most intensive distribution of crop protection guns in India. An equal number of guns and rifle licences have been issued for "self-protection", so the pressure on wild life in the State can well be imagined.

The following game-sanctuaries were established during the year under report :—

1. Water supply catchment area in Simla

Sanctuary area	2,537.54	acres.
Buffer Belt area around the sanctuary	12,777	,,
Sanctum Sanctorum	1,190	,,

2. Simbalbera and Bharal game-sanctuary in Sirmur district :—

Sanctuary area	4758.00	,,
Buffer-belt area	6253.61	,,
Sanctum Sanctorum	1973.00	,,

3. Kalatop and Khajiar game-sanctuary in Chamba distt :—

Sanctuary area	3980	,,
Buffer-belt area	7722	,,
Sanctum Sanctorum	158	,,

Two other game sancturies are proposed.

These game-sanctuaries in Himachal Pradesh, small as they are, are a model for other States, because the recommendation of the Indian Board for Wild Life are being strictly followed in regard to buffer-belts and Sanctum Sanctorum or "Abhayaranya".

Two pheasantries were established during the year under report. A scheme for the establishment of a zoological garden in Simla was also under consideration. The total

expenditure contemplated was 7 lakhs, but the scheme has been dropped for the present because of lack of funds.

The management of fur-animals and of water-fowl are contemplated and it is intended to carry out surveys, censuses and stocking of areas. The construction of shikar huts for tourists is also being planned.

The report on the Game Department of H.P. for the year 1958-59, makes interesting reading and there is no doubt that this State, which started with none of the disadvantages of older States and all of the advantages of a newly integrated political unit should, given encouragement, do well in game protection.

There is, however, one aspect of the game rules of H.P. which must be mentioned, and that is the unique systems of close-seasons, which were introduced a couple of years ago, of 3-months close, 3-months open, 3-months close and 3-months open. It is not clear what are the advantages of these alternating open and close seasons of six months each. The contention that game requires protection, both in the mating season as well as in the season of the young, cannot be justified by this means for the simple reason that young and immature animals are automatically protected along with their mothers under the conventional rules. A close season of six to eight months covering the breeding season, part or whole of the gestation period of the mother and in some cases, the adolescent period of the young, is surely sufficient for such animals and birds as are to be found in H.P. We would urge the State Govt. to reconsider this very artificial arrangement of close and open seasons and substitute for them the rational close-seasons recommended by the Wild Life Preservation Society of Northern India.

P. D. S.

Miscellaneous Notes

CONTROL METHODS

The use of pesticides in control of agricultural pests is becoming more and more widespread, as crop-targets become more and more important in the light of increasing world populations. In India this has not yet assumed the proportions in other countries, but just as use of artificial fertilisers is increasing so we may expect the increased use of pesticides for control of various insects which are reputed to damage crops.

India is still in a positon to benefit from the experience of other countries, particularly of America, from where much valuable information is available. As an example of how dangerous the hasty and unrestricted use of pesticides, meant to exterminate allegedly harmful insects, can react on the cultivator through the destruction of other non-harmful insect species and of animal and bird life, the campaign to exterminate the fire-ant in the southern States of America is worthy of study.

The fire-ant came to the Gulf States from South America about 40 years ago and it soon spread to about 27 million acres in 10 southern States. The United States Department of Agriculture has declared it to be one of the worst insects in the south and the United States Congress authorised a co-operative programme to eradicate this insect, utilising lethal chemicals, such as dieldrin and heptachlor, which are both 20 to 25 times as deadly as D. D. T. and with a residul potency lasting for years. Dieldrin is but one of a long sting of insecticides produced by the Shell Company—others are endrin, aldrin, phosdrin, D-D and Nemagon.

Upto-date, some 500,000 acres have been treated from the air. As the evidence accumulates, it is obvious that the extermination programme is not an unmixed blessing. The fire ant builds mounds in fields, which interfere with mechanised operations and with mowers etc. It gives a fiery sting which is painful, but upto now only one human death has been traced to the ant in the 30 years during which it has infested the South. It is supposed to attack plants, animals and birds. In Alabama alone it is estimated to have done 24 million dollars worth of damage to crops, life stock and birds etc.

On the other hand, observers have declared that the fire-ant seldom eats seeds, seedlings or roots of plants. Insects were found to be the more common food of the fire-ant, such as aphids, small spiders and even beetles and the famous boll weevil. They eat dead insects as readily as live ones. In its native Argentina, the ant is considered to be beneficial because of its insectiverous habits and the north American farmer's apprehension is not understood there. Alleged destruction of quail and rabbit populations is considered by wild life technicians in Louisiana to be due to changes in land use and habitat. As regards live-stock, there was not one authentic case of the fire-ant killing live-stock and the connection of ants being found on dead animals is of no significance.

Questions are now being asked whether the fire ant eradication programme does not cause greater destruction of beneficial forms of life than the fire ant itself. In the aerial spraying methods, the poison is so intensive (standard rate of two pounds per acre in the form of small clay-granules which when broadcast, cover the ground at the rate of seven to twelve granules per square inch) that no form of life can cross without coming into contact with it.

The U. S. Fish & Wild Life Service announced that quail on test areas in Alabama, Louisiana and Texas were decimated. Similarly was the case with rabit populations in Texas. Aquatic organisms, which are generally more susceptible, such as snails, crayfish, snakes and frogs etc. reveal heavy mortality. The earthworms were reduced by 78.9 per cent in Louisiana.

The conclusion is inescapable that while the fire-ant is an undesirable pest, its damage is not as serious as painted and that the long range and accumulated results of the campaign of extermination on human beings, birds, live stock and beneficial forms of wild life are very serious. It is recommended that wholesale aerial spreading of the chemicals should be immediately stopped and that only local application on specifically infested areas by hand, or by small surface machinery, should take its place.

On a different front are the reported results from America of indiscriminate control of mammalian wild life considered dangerous to man. The predator control programme in certain parts of the United States has virtually eliminated the grizzly bear, the coyote and the cougar in parts of the western ranges. In this campaign poison baits, notably the deadly '1080', were dropped from the air, while cyanide-guns (tubes loaded with cyanide shells, which explode in the animal's face, killing it almost immediately) were planted in baits or kills. All this has greatly reduced the native carnivora. As a corollarly, the deer and elk in certain areas have increased to danger point and these game animals on the ranges face the prospect of starvation, because there is not enough forage to support them.

In India there is still time to learn from these unfortunate results of indiscriminate application of pest-eradication programmes on so-called dangerous species of wild life. Locusts are a menace which must be fought at all costs, but it is probably fortunate for ground game, such as partridge and quail, that wholesale aerial spraying methods are not being adopted to fight this pest. At the same time the use of pesticides and herbicides in tea and coffee estates, vegetable and agricultural farms and even in forest operations is growing, and it is essential to guard against their indiscriminate use. Dr. Clarence Cohham, former assistant director of the U.S. Fish & Wildlife Service, speaking on future research needs, said "We need to give much more emphasis to basic research and the long-time and indirect effects of chemical controls and pollutants. Some studies of chlorinated hydrocarbon insecticides give convincing evidence that ingestion of minute doses over a period of time may seriously and alarmingly affect reproduction of bird life".

The mammalian-balance has already been greatly upset in certain parts of India by campaigns against pig and deer on the plea that they are a menace to crops, resulting in increased prey-damage by the larger carnivores, the tiger and leopard, on domestic stock.

This, in turn has inevitably lead to demands for drastic control of the latter species and thus the vicious cycle is completed and our fauna disappears !

2. TRAINING OF WILD LIFE STAFF

Training for whatever little wild life staff there is in India is very much overdue. Such staff is selected from existing forest department cadres and in some cases from outside the ranks of these departments. While no doubt efforts are made to see that persons suitable to the work are selected, no special effort is made to obtain qualified men. These personnel are expected to carry out the routine task of protecting the Sanctuaries and National Parks under their care, to escort visitors, to sometimes trap & transport wild animals and as part of their duties, to supervise the construction of buildings, roads and machans, etc. In many cases they are completely untrained from the zoological and wild life management point of view. One or two may be versed in the handling of arms. A few may be interested enough to observe and correlate the movements and behaviour of the animals and birds in their charge, but these observations are seldom published and hardly anyone is interested enough to note them down nor, for that matter, are there facilities for doing so. In a word, the wild life protection staff in India is of a very low calibre and are barely deserving of the name.

This is not meant as an aspersion on a generally earnest, hardworking body of poorly paid individuals but on the system which employs them. The largely empirical and *ad hoc* decisions, which are the features of the management of our wild life and of our Sanctuaries and National Parks in India and which have served to pass muster for intelligent wild life management until now, must give place to scientific and intensive methods based on principles which have been arrived at from sound ecological studies, censuses and surveys. It is as difficult as is the famous 'chicken and the egg' question to say which should come first—the training of the staff or introduction of management practices of this nature. But like the 'chicken and the egg', it can be left to answer itself while we get on with the task of both training of staff and introduction of sensible wild life management.

The present low priorities assigned to wild life, both in the matter of finances and of planning and execution, simply will not do, however. Indeed, the whole question must be raised to a higher level and active steps for the training of wild life staff and the introduction of wild life 'management' as such, should be taken together. The course of training should be build up and introduced in the local Forester's Schools of States for the theoretical side and on the elementary level, and at the Forest Research Institute at the more advanced level. Selected personnel from the Game Staff of the various States should be sent to the latter institute for more advanced training and among them the best of the higher categories should be sent abroad to America for training in wild life management and to Africa for experience

in conditions nearest approximating ours here in India. Even if this is not immediately possible, they should be given a tour in India to visit the main Sanctuaries and National Parks.

The establishment of a wild life ecology research unit at the Forest Research Institute & Colleges, Dehra Dun, is an essential preliminary to the introduction of wild life management practices in India. Universities, however, can also play their part and the specialisation of zoology graduates in wild life ecology could be a stepping stone to a career in wild life management in State forest departments. What is wanted is a greater realisation of the needs of the situation by the top foresters of India, who can do much more to influence the course of events in their States than they are doing at present. Besides this, the Indian Board for Wild Life must take a positive and strong line on the question of special and expanded game branches of the forest departments for protection of wild life and for the introduction of training of wild life staff.

3. FUNDS FOR WILD LIFE.

In the U. S. A., Federal excise taxes collected on sales of sporting, arms and ammunition and fishing equipment are distributed among the States for wild life protection and restoration and improvement of the hunting and fishing 'industries'—for that is what they are, with some 17 million hunters contributing 2 billion dollars each year on hunting and paying 80 million dollars as licence fees.

By comparison, in India the income from these sources goes into the general revenues of the forest departments of the State, which dole out comparatively petty sums on wild life management, including the cost of maintenance of slender wild life protection staff, roads and parks etc. Such scientific practices as detailed ecological studies, censuses and surveys, are practically unknown as yet in Indian wild life management while re-stocking of areas with game birds and animals was practiced only by certain ruling princes in pre-independent India.

Governments have been pressed from time to time to accept the principle that all revenues on wild life, including revenues on import and sale of fire-arms, ammunition, fishing tackle etc. and the revenues from shooting and fishing fees, royalties etc. will all be earmarked specially for expenditure on India's wild life, but these suggestions have not been accepted. The fact of the matter is, that the old habit of looking on wild life as a source of income, along with other sources of forest revenue in a State, dies hard. It will require much pressure and a drastic change of outlook before the principles which are governing wild life management in such advanced countries as the U.S.A. come to be accepted here. It is true

that under the Five Year Plan, there has been provision for wild life of what would appear to be a substantial nature. But the central Government's assistance, which is being given to States on a 50 : 50 basis, is being spent mainly on creation of Sanctuaries and National Parks, in which the erection of expensive buildings, watch towers etc. and the construction of motorable roads, claim the greater share. While all this is, no doubt, useful in creating the outer shell, the 'stuffing', if one may be pardoned for using a rather vulgar expression, is not there and in fact, in many cases, is becoming reduced. Unless very substantial afforts are made in directly protecting the wild life, not only in our sanctuaries and national parks but in our reserved forests and in actively *propagating* species which are at present in short supply and in re-stocking areas which have become depleted, the day may come when our empty 'shells' may stand with nothing in them !

(IV) A Conservation Foundation for India.

"What we save in the next few years is all that will ever be saved"—ALLEN MORGAN.

When one sees the tremendous spate of literature and the enormous sums of money being devoted to the conservation of natural resources in advanced countries like the United States, one cannot help being filled with envy and at the same time, depression, at the almost complete lack of comparable activity in India. Taking wild life alone, the average annual expenditure of 54 agencies working for wild life in the United States in the fiscal year ending June '58 was 2,464,445 dollars. No less than $75,000,000, representing licenses fees, is by law ploughed back into the protection and production of wild life.

The Conservation Foundation of New York has an income of $190,640 and an expenditure of $176,110, as for 1958. Its general fund totals $112,256 while its specific purpose fund is $90,618. This Foundation's aims are, in their own words: "To promote greater knowledge about the earth's resources—its waters, soils, minerals, plant and animal life; to initiate research and education concerning these resources and their relation to each other; to ascertain the most effective methods of making them available and useful to people; to assess population trends and their effect upon environment; finally to encourage human conduct to substantiate and enrich life on earth."

The work carried out by the foundation includes collection of basic hydrologic data; study of crop yields; evalution of education; study of fertility patterns; school teaching, production of teachers' hand books and three-dimensional film strips, radio programmes, and radio visual aids; television education; pesticides enquiries; forests research and so on. The foundation has received sums, both large and small, from private individuals and business-houses and has created trusts and foundations out of these funds. It receives contributions,

grants and legacies, either for general or specific purposes. This non-private, non-partisan, organisation falls within the meaning of a charitable institution, wherein contributions are deductable from income tax.

In recent years, the Conservation Foundation has interested itself in the fate of African wild life along with the New York Zoological Park. An African Wild Life Fund has been started to work in a massive way for the saving of Africa's vanishing wild life. The Zoological Society of New York has issued an appeal for funds, which has been widely hailed in African wild life circles, who now feel that "they don't stand alone."

Last February, Sir Julian Huxley the famous British Scientist, was in New Delhi and broached the subject of the organisation of a Conservation Foundation for India on the lines of suggestions he had obtained from Mr. E.M. Nicholson, the Director General of Nature Conservancy in Great Britain. Sir Julian met the American Ambassador in India and we are privileged, through Mr. Bernard Frank who was present at the discussion, to have received a copy of the letter written by Mr. Nicholson to Sir Julian Huxley. Nothing more has been heard of this proposal since then.

So far most of the publicity of Indian wild life has been through the medium of photographs and films of animals and birds in Sanctuaries and National Parks and these, as well as the articles which accompany them, contain very little of a conservation bias directed to educating and arousing India's youth and her rural population and matters of wild life.

A few months ago, an approach was made by Mr. Bernard Frank to the Conservation Foundation of New York on behalf of the Wild Life Preservation Society of Northern India, for the preparation of film strips with a conservation bias, depicting the balance of nature in the various parts of the Indian countryside, for propagation purposes among India's rural population in particular. Such a project would involve the services of a professional pnotographer, who is also knowledgeable in the conservation field, for a period of 1 to 2 years and the figure quoted to the foundation as the likely cost of such a project was of the order of Rs. 20,000/- to Rs. 30,000/-. Unfortunately, coming as this request did, just at the time when the Conservation Foundation was becoming interested in the saving of Africa's wild life, the appeal was not successful.

We are forced to conclude that though it may be possible to receive assistance from foreign sources, we must seek to assist ourselves. Surely, it is not beyond our power in India to collect funds for a similar foundation which will undertake the conservation, on the broadest possible front, of India's natural resources and in particular of India's wild life?

In this land of '*Dharma*' where the ideal of avoidance of killing both domesticated and wild creatures is deeply rooted in the people and in their religion, (although their preoccupation with the struggle for existence often renders them apparently indifferent to the cruel actions of others), it should not be impossible to awaken public enthusiasm for such a cause. The leaders in the past in the protection of wild life—the ex-ruling princes, and land owners—are still in a position to contribute something towards the creation of such a fund, for one thing. Then there is the general public, particularly the leading industrialists of the country, who often donate large sums to charities which are concerned exclusively with *human* beings. Is it beyond the bounds of possibility to expect such people to contribute similarly to the saving of India's wild life and the conservation of her natural resources, once the idea is explained to them convincingly and effectively? Building of temples, bathing ghats and *dharamshalas* once had their place in Indian culture and still have, for that matter. But cannot the creation of wild life and nature protection organisations take their place, in an increasingly materialistic age where religion is losing its hold on the people and where something else is needed to take its place? Who is to start this movement? Why cannot the Indian Board of Wild Life give the lead in this matter, spear-headed as it is by the Maharajah of Mysore and occupying the position as it does of the chief advisory body in the country on wild life matters?

The Punjab Wild Life Bill, 1958.

In consonance with the recommendations of the Indian Board of Wild Life, the Punjab has revised its Wild Life Legislation. In 1958, a draft act called the Punjab Wild Life Bill was prepared and submitted to a Select Committee for their scrutiny and modifications, if necessary. The original Punjab Wild Birds and Wild Animals Protection Act of 1933 was considered to be defective in certain respects and the new legislation was intended to remove these defects, while providing for the changed conditions in the country.

The Society was unofficially made aware of the proposed revised legislation through the good offices of the Conservator of Wild Life in the Punjab, Shri Angad Singh and our Vice-President later received an invitation to attend the Committee which examined the duly proposed bill in Sept. 1958. He could not go, but sent his comments on some of the important points. At the meeting of the Executive Committee at Nabha in December, 1958, at which the Chief Conservator of Forests, Punjab as also the Conservator of Wild Life and the local territorial Conservator were present, the Society's proposed close seasons and other recommendations were discussed and an attempt was made to convince them that one close season for all animals and birds, as proposed by them for the Punjab, was artificial and that the Society's *group* close seasons were more rational.

Unfortunately, the bill had passed through the final stages by that time. On receipt of a copy of the finally passed bill, the Legislation Sub-Committee of the Society in March 1959 considered its provisions in detail and made a comparative study of the position as compared to the previous act. It was found that in certain cases there was a weakening of the provisions of the act and it was decided to represent the matter to the Punjab Government for possible modification of the act.

The following are the relevant sections, where it is considered there has been a weakening of the provisions of the act and where there is scope for improvement. A representation on these points has been made to the Secretary of the Forest Department, Punjab Government with copies to the Chief Conservator of Forests and the Conservator of Wild Life, Punjab.

(a) *Close seasons.* There is a *uniform* close season in the Punjab for all animals and birds, 15th March-30th Sept., except for mountain animals (including red bear) and tiger, for which special rules and seasons apply.

While one uniform close season has certain advantages, it was felt that the close seasons proposed by the Society had greater advantages and were more rational.

To re-capitulate, the Society's *main* close seasons are as follows :—

Tigers, leopards, pigs, nilgai, all deer and antelope.	1st May-31st October.
Jungle-foul, partridge, quails, chikor, kalij pheasant, pigeons etc.	15th March-1st October.

Note :—The opinion has been expressed that for jungle-fowl the date should be 1st March, as hens shot in the first week of March have been found to contain eggs.

Mountain animals (except Hangul or Kashmir stag) ...	1st Nov.-30th April.
Mountain birds	1st April-30th September.

It was particularly noted that under the Punjab bill, leopard, black bear, nilgai and pig were not given any close season. It was felt that while in open, cultivated areas these animals should not be given a close season, in forested areas and particularly in reserves and protected forests, they should be given a close season, as they serve as food for the larger carnivora.

It was also noted that the Great Indian Bustard has not been protected, although it is one of India's vanishing birds which has been recommended complete protection by the Indian Board of Wild Life.

Other Points are :

SECTION 7 (i) *Powers to exempt persons from provisions of the act.* This has been withdrawn from officers previously authorised to do so.

SECTION 6 (ii) *Powers to Chief Conservator of Forests to permit killing of any bird or animal in a sanctuary.* This has been withdrawn from the original draft.

SECTION 8 (iii) *Prohibition on killing or capturing any bird or animal within one mile of a sanctuary except under special permit.* This has been withdrawn from the original draft. (It is to be noted that the Indian Board for Wild Life has recommended the creation of buffer belts around sanctuaries in which no killing etc. of any animal or bird is to be permitted).

SECTION 11 (iv) *Power to prevent commission of offences.* "Police Officers" have been excluded from this provision. This is considered a great weakening of the law, as it will only encourage police officers to ignore breaches of the wild life rules.

SEC. 14 (3) (v) *Carrying fire-arms etc. and killing or capturing in sanctuaries.* The period of punishment *in default* of the fine for these offences has been reduced from *6* to *3* months imprisonment. This is considered to be a weakening of the law.

SECTION 14 (4) The word "grey-hounds" has been substituted for "dogs" in this Section. This is considered to be a weakness, as many breeds of dogs other than grey-hounds are used for hunting game.

SECTION 18 (vi) "*Government Trophies*" (any bird or animal killed by mistake or in defence of life and property or without licence) in this whole Section has been deleted from the original draft. This is considered to be a weakness.

SEC. 14 (2) (vii) *Penalty for subsequent conviction*: The alternative to the fine, i.e. "imprisonment of either description" has been modified to "*in default*". This is considered to be a weakening of the law.

The Conservator of Forests, Punjab has acknowledged the representation and has stated that the working of the act will be watched.

Activities of the Wild Life Preservation Organisation, Uttar Pradesh.

The importance of preserving wild-life in India is felt greater to-day than at any other time. In Africa about two decades back professional hunters and poachers killed animals indiscriminately and traded in ivory and skins and actually wiped out many herds of beautiful animals. In America about the same time herds of bisons were being exterminated.

India to-day is poorer in having lost a few species of wild-life and it will indeed be a pity if some more species like rhinocerous, lion, swamp-deer, thar (tahr), ghural, musk deer, black-buck, snow-leopard, munal and chir pheasants, which today are on the verge of extermination, are also lost to us.

It is, indeed, fortunate that the naturalists and conservationists became alive to the imminent danger to which our wild-life had been exposed and set up the Indian Board of Wild Life in 1952. Several State Wild Life Boards were formed and they act as advisory bodies to suggest ways and means of wild life preservation. But game laws and rules are not enough to protect the fast diminishing wild-life and as the territorial forest staff has very little time to enforce these laws, the Government of Uttar Pradesh, in September 1956, introduced the Wild Life Preservation Scheme under the Second Five Year Plan, and set up a separate organization for its proper implementation. The main objectives of this organisation, known as the Game Preservation Circle, were :

1. Preservation and development of wild-life all over the State forests.
2. Management and development of existing National Parks and Sanctuaries and formation of new game reserves or preservation and protection of wild-life.
3. Provision of necessary facilities and amenities in the Corbett National Park and important sanctuaries, with a view to attracting tourists and students for studying and photographing wild-life in its natural environment.
4. Development of shikar facilities for foreign tourists, to earn foreign exchange as well as to provide recreation for our sportsmen and naturalists.
5. Educating the public in favour of preservation of wild-life by adequate publicity and propaganda.

THE CONSTITUTION OF THE CIRCLE.

Chief Game Warden

Game Warden, Dehra Dun Region. (Dehra Dun)	Game Warden, Malan Region. (Kotdwara)	Game Warden, Haldwani Region. (Haldwani)	Game Warden, Gonda Region. (Gonda)	Game Warden, Chandrprabha Region. (Varanasi)

Asstt. Game Warden (Publicity)

Game Wardens were provided with armed guards and jeeps for touring and apprehending the poachers.

A re-organised scheme known as the 'Wild Life Preservation Organisation' came into force from 15th September 1958.

Chief Conservator of Forests.
(Administrative control)

Chief Wild Life Warden

Wild Life Warden Western Region. (Kotdwara)	Wild Life Warden Eastern Region. (Lucknow)	Wild Life Warden Southern Region. (Allahabad)	Wild Life Warden (Publicity)

There are 19 Assistant Wild Life Wardens, one each incharge of a forest division in the plains and 116 Wild Life Guards, one each incharge of a forest range.

Wild Life Week

Apart from enforcing the game laws and compounding the cases of poachers and lawbreakers, it was felt necessary to impart education to the public and to the students in particular, on the importance of game preservation. The First Wild Life Week was inaugurated in the year 1955 and has now come to stay as a regular annual feature.

In the year 1958, as in previous years, wild life day and wild life week were celebrated throughout the State in co-ordination with different Government departments and district officers. Processions of elephants and animals and publicity posters etc. on motor vehicles were taken out and meetings were held in public places, where eminent persons emphasised the need of wild life protection. Cinema shows were held in which educational films on wild life were shown.

In Lucknow the programme deviated from the usual processions and more emphasis was laid on the education of school children. Students in batches were shown the wild animals and birds in the Zoological Park and they were explained the habits and the importance of wild-life preservation. In the evenings wild-life films were shown in the educational institutions.

The wild life week was inaugurated by the Minister of Forests and prominent conservationists gave talks on the conditions etc., of wild life. A regular exhibition of paintings, photographs and publicity literature on wild life was held. Prizes were distributed to the best photographic and painting exhibits and the winners of debates on wild life. These items infused a new spirit into students and they willingly and voluntarily participated in the celebrations.

Poaching :

The wild life wardens are constantly touring in their respective zones and are carrying out day and night raids to catch the poachers and law-breakers. The duties of the wild life wardens are manifold. They have to hold meetings in the bordering villages and towns to acquaint the public with the importance of wild life preservation, to educate the shikaries and to catch the poachers and bring them to book. As the result of such raids, several poaching cases have been detected and compensation totalling Rs. 2,583/- was realized upto February 1959. The result of such activity has been a marked decline in poaching cases.

In the publicity and education field, calendars with game-laws etc., folders, posters, booklets etc., were produced and distributed. More literature in the form of game laws, shooting rules, folders and 16 m.m. films are in production and will be out very shortly.

The co-operation of the public, officers, shikaries, conservationists and naturalists is forthcoming and the need is for closer and closer co-operation. Another step forward in recent years has been the formation of wild-life sanctuaries in the province. Chandraprabha Sanctuary in Varanasi district, Malan Sanctuary in Lansdowne division, Jaulasal Sanctuary in Haldwani division and two others in Tarai and Bhabar and one in North Kheri division have been formed. It is proposed to have more sanctuaries in Gonda and other divisions.

There has been a marked increase in tourist traffic in the Corbett National Park where many amenities for staying and study wild life have been provided.

H. B. Johri.
Chief Wild Life Warden,
Uttar Pradesh.

It Happened in Northern India

1. Staking Buffalo for Tiger

(Extract from the Times of India, 18th May, 1959)

LODON PROTEST

"The League Against Cruel Sports decided yesterday to send to Mrs. Vijayalakshmi Pandit, High Commissioner for India, 'a strongly-worded protest' about a recent incident in India in which a tiger was allowed to kill a staked buffalo 'for the amusement of a British Peer and his wife.'

The League says: 'We beg of you to bring this matter to the notice of the Prime Minister of India without delay, so that he can deal with the perpetrators and see that such an intolerable outrage to civilisation is not permitted to occur in India again.' "

2. Unauthorised Shooting Of A Tigress

(Extract from Frontier Mail, Dehra Dun, 30-8-59)

A case of un-authorised shooting of a tigress in the Government forests of Mirzapur district was recently caught by the wild life preservation squad, southern region, Allahabad.

The case was ultimately compounded for Rs. 340 at the request of the 5 offenders involved in it.

"And How They Do It Elsewhere"

1. "Italian Irony"

(Extract from the "Daily Telegraph", London).

"The campaign to start a tourist boycott of restaurants in Italy serving dishes made from song-birds has produced sardonic comments in the Italian week-end Press. The campaign is by the British section of the International Committee for Bird Preservation, headed by Lord Hurcomb.

The *Rome Messaggero* points out that the British solicitude is reserved exclusively for birds that sing. Britons had no objection to 'eating with relish such birds as quail and partridges.' The Air Ministry even forbade low-flying by aircraft over areas where such birds were bred for the table."

2. "Mercy Gun"

(Extract from Hindustan Times, 22nd August, 1959).

"The first 'mercy gun' to be brought to Malaya, a special type of gun which shoots a syringe which knocks out an animal, is to be given a test in a hunt for a man-eating tiger.

Costing Rs. 2,500; it has been imported by the Malayan Society for the Prevention of Cruelty to Animals and society officials with a game warden intend to spend four nights in the jungle looking for the tiger, which has already carried off eight aborigines.

The tiger, it is believed, is injured and no longer able to kill its normal prey. The gun was ordered to save animals being killed when they were caught in wire nooses, which have injured and turned into man-eaters many Malayan tigers.

The 'mercy gun' knocks out an animal and can put a tiger to sleep for half an hour, which gives time for game wardens to truss or cage it and then treat its wounds. The gun, made in the U.S.A., is accurate between 30 and 50 yards and is capable of delivering an anaesthetic of between 1 and 10 c.c. into the animal."

3. "Clean Sweep"

Extract from New York State Conservationist, Feb.-March, 1959)

"Dear Editor: Following is a brief summary of four cases we recently settled in regard to the illegal taking of two deer in Allegany State Park :

While working in the vicinity of Allegany last Fall on October 4, I was notified by a member of the Olean Police Department that a Game Protector was needed in Salamanca in regard to a train striking a car containing portions of deer. In Salamanca, I was informed as to what had taken place and upon interrogation of the two men who had stayed with the car, I found that there were two other men involved in the illegal taking of two deer in Allegany State Park.

Returning to the scene of the auto-train collision, I picked up the unusable portions of the deer, which the four men involved had been on their way to dispose of when their auto was struck by the train. We settled with Felix Miller of Limestone, N.Y. and William Christjohn of Smethport, Pa. for $102.50 each, that evening. Later the same evening we apprehended Earl Snyder of Salamanca, another of the four persons involved, and made arrangements for him to make his settlement the following Tuesday. He appeared, when

scheduled, before the local Justice of Peace and paid $102.50 also. The following day, the last of the four men involved, Robert Boser, of Salamanca, appeared and settled for $102.50, making the total penalty involved $410.

Robert McNamara,
Game Protector, Salamanca."

(Very expensive deer, when the cost of the car is added !—Editor).

Letters to the Editor

Sale of Game Birds in Close Season.

Dear Sir,

I enclose a cutting from the "HINDU" dated July 12 of a Hotel advertisement. Among the items on the Menu you will observe is "PARTRIDGE MASALA".

Partridges are being sold openly in the Madras market and *N.B.—This is the Close Season !*

Perhaps you could take steps to prevent this sort of sale of game birds.

Mysore,
25th July, 1959.

Yours faithfully,
J. De Wet Van Ingen.

(*Editor* : The Chief Conservator of Forests, Madras, was written to about this matter but he expressed his inability to find a solution for it. We should have thought that the direct approach of a ban on the serving of game-birds in restaurants, if necessary after introducing suitable legislation, would succeed. In Delhi, there is such a ban in force. 'Where there is a will, there is a way'.)

Menace of the Motor Vehicle.

Dear Sir,

Unless the menace of the motor vehicle is faced by providing for *confiscation* of the vehicle, poaching by this means will not be halted. The Indian Board for Wild Life could and should act to implement their own Resolution No. 17(c).

I would invite urgent attention to this problem. I cannot understand why State Governments and the Indian Board have taken no steps to put an end to the use of the motor vehicle for killing animals.

Yours faithfully,
Col. R. W. Burton (Retd.)

London, July, 1959.

Dear Sir,

For many months I have toyed with the idea of approaching you with a problem for which I have been trying to find an answer. Will you kindly read through the following and give me an answer ?

At the beginning of October 1958, I was driving to the Dukhwan, which is a dam built across the Betwa river. This place is approximately 23 miles south of Jhansi, about 6 miles off the main Jhansi-Saugor road.

The time was shortly after dusk and on approaching a bend in the road I noticed some dim lights approaching, so pulled over to allow what I thought were bullock carts to pass undisturbed on the somewhat narrow road. I then discovered that the on-coming vehicles were not bullock carts but some villagers on bicycles carrying lamps. Just ahead of these men and on my side of the road, I noticed an animal which I presumed was a half grown dog, eyes aglow and trotting along ahead of its owners astride their bicycles. I thought nothing unusual about this spectacle and switching off my head-lights, decided to move on after the amateurish riders passed me. They were now only approximately 40 yards away.

Then, all of a sudden, something happened. The almost forgotten small animal came into the illumination of my parking lights. He was a deep ruddy brown, had a square topped head, and floppy ears. I thought—'what a nice looking dog' (expecting a half-starved mongrel). He came up to the car. He seemed in no hurry until he turned abruptly into the jungle bushes on the road-side to his right and gave us a view of the back of his most intriguing form and just disappeared never to be seen or heard of ever since.

As he turned, he displayed a broad, lighter coloured panel running down his back (I call it the colour of Ovaltine). The rest of his body was the deep ruddy brown—or it appeared to be so. There might have been streaks of dark chocolate or black on his under-parts, but in the dim light I could not tell. As a matter of fact, it was only after I saw this lighter coloured panel on his back, that I was conscious of it being a rare and strange animal. His tail as far as I recollect hung down to just below his hocks, (if they can be called hocks). It was not bushy like a fox's. The texture of his coat seemed like that of a squirrel, but the fur was thicker.

The total length of this animal I reckon at approximately 30 inches from the tip of his nose to the base of his tail. The tail I should think was another 6 to 8 inches long. His height from the ground must have been approximately 10 inches. He did not have a pointed snout. His eyes were small, black and beady and were moderately set (they were not protruding). His ears were not round or pointed, but seemed square cut. His body girth was about the same as a fox-terrier's.

This then is the strange animal which left me quite perplexed. I decided to wait for some time with the hope of the stranger allowing me another glimpse of his most intriguing form. I abandoned my Dukhwan visit, and after supper returned to continue the vigil. I looked for imprints of his paws to no avail. I tried to make myself believe that it was an otter that had come out of the swirling Betwa river (about a mile away from this spot), and who decided to live in some rain-water pond in the jungle. But the distinct panel on his back, his gait coming down the road and the tail, eliminated the possible truth of my fertile imagination.

I enquired from all the village people and others living and employed in the area. They had never even heard of such an animal. Friends suggested a skunk—but a skunk I know is black and white with a long tail and is not an animal found in India.

After many months of questioning and enquiring, I happened to be reading "Forest Life in India" by Best. In his chapter III, entitled "More of Chanda", he relates his experience with two "*Bhui Richs*" on a track one moonlight night. They blundered into him and suddenly dived into the jungle. He does not describe them apart from stating that they were badgers. Can it be then that this little stranger was a badger? May I have some more information about the *Indian Badger? I asked a forester if he had ever seen a badger or heard of a "Bhui Rich". He looked at me in amazement and asked whether it was an Indian animal. I quoted Best.*

Yours faithfully,
(Sd.) G. H. Scott, Major,
Babina Camp.

July, 1959.

(*Editor*: The animal is the Indian Honey Badger or Ratel. Unlike other badgers it does not have a pointed snout. The local vernacular name is 'kabar-bizoo' or 'grave-digger.' It is also called 'bhui-reich', because of its resemblance to a bear in miniature).

* * * *

LETTER FROM ASSAM

Dear Sir,

This north-east frontier state is the proud possessor of a fine heritage of wild life, but unfortunately little attention seems to be paid to it by Government departments these days. There has been only one very brief two-hour meeting of the State Wild Life Board in the last five-and-a-half years; and although there is a genuine public interest in wild life and its preservation, the authorities do not seem particularly concerned in the matter except in the development of the two main sanctuaries.

These two wild life sanctuaries of Kaziranga and Manas (North Kamrup) are becoming increasingly popular with tourists from abroad and visitors from within India. In the former the rhino, swamp-deer and hog-deer are on the increase. The Manas Sanctuary now has a motorable road up to the northern boundary and a two-roomed rest house. If the waters of the rivers Manas and Beki can be divided up into 'fishing beats', as in the rivers of Kashmir, it would eliminate the confusion felt by fishermen who keep 'running into each other' while fishing.

An important step forward has been taken in recent years by the formation of the Assam North Bank Fishing and Shooting Association and the Upper Assam Fishing and Shooting Association—both containing most of the local sportsmen, mainly tea planters. It is to be hoped that the members of these associations will become more and more interested in conservation (i.e. management and wise use) of wild life, so that *bona fide* sport can be continued to be enjoyed by future as well as by present generations.

Shillong,
September 11th, 1959.

Yours faithfully,
E. P. Gee.

Wild Life of the Ladakh District

Ladakh (Ladags) known as Western Tibet to the Europeans and Huna Desh of the Sanskrit, is the northern district of Jammu and Kashmir State. It lies between North Latitude 34° and 35°-35′ and East Longitude 75° to 30′ and 87°, has an area of 45,762 square miles. Exceedingly complex chains of mountains traverse it east and west and between these ranges there are vast sandy valleys, the basins of extinct lakes, relics of the Tethys of Suess, through which the Indus, Shayok, Zanskar, Suru Dras and Shigar rivers flow.

Ladakh is the loftiest inhabited district in the world. No part is below 9,000 ft. and a large portion of the population live at elevations from 12,000 ft. to 15,000 ft. While this is the height of the valleys and plateaus, the mountain ranges average from 17,000 ft. to 21,000 ft. and the peaks over 25,000 ft.

The climate is exceedingly arid and the rainfall at Ladakh is 2.7 inches per annum (average taken for 16 years)—and is enhanced by the rarified air. The maximum sun temperature has been recorded as 183° to 204°F, while in India it rarely goes above 170°F.

In shade the temperature ranges between 46°F to 60°, while in the Indian plains it is from 90° to 125°. At 15,000 ft. the water freezes every night. In the winter the temperatures goes below minus 45° at Chhushul and so far nobody has recorded the minimum temperature in Changchhenmo during winter. Only a few men of Pangon village live during winter tending their herds of dry female yaks, as good grass is to be found on the wind-swept plains. Inspite of the aridity and extreme temperatures, the flora and fauna is not poor, as may be expected and once Ladakh and Changchhenmo were considered the paradise of sportsman for rare big game. The Tibetan antelope, the Ovis ammon, and the wild yak attracted the sportsmen from across the seven seas.

List of wild animals found in the Ladakh district.

I. Mammalia (Herbivora)

1.	Tibertan antelope (Pantholops hodgsoni) ...	... R'tsos.
2.	Tibetan gazelle (Gazelle picticaudata) ...	... Gao.
3.	Markhor (Capra falconeri) ...	... Ra-grad.
4.	Asiatic Ibex (Capra sibirica) ...	... Skin.
5.	The Bharal (Ovis nahura) ...	... Napo.
6.	Tibetan Argali (Ovis ammon hodgsoni) ...	... Nyan.
7.	Ovis ammon typica ...	... Nyan.
8.	The Urial or Shapo (Ovis vignei) ...	... Shapu.
9.	The Yak (Bos Peephagus grunniens) ...	... Don.
10.	Wild Ass of Tibet (Equus Kiang) ...	... Rkiang.
11.	Marmot (Marmota himalayana) ...	... Phia.
12.	Marmot (Marmota caudata) ...	... Phia.
13.	Hare (Lepus ruficaudatus) ...	... Ri-on.
14.	Himalayan mouse hare (Orchotona royeli) ...	... Zabra.

II. Mammalia (Carnivora)

1.	The Snow-leopard or Ounce (Felis uncia) ...	... Schan.
2.	Tibetan Iynx (Isapellina) ...	... Ee.
3.	The Wooly wolf (Canis lupus chanco) ...	... Shanku.
4.	The Hill fox (Vulpes ladacensis) ...	... Wa or Waste.
5.	The Wild dog (Cuon alpinus laniger) ...	... Phara
6.	The Brown Bear (Ursus pruinosus) ...	... Dredmo
7.	The Otter (Lutra lntra kutan) ...	.... Chhu-sram
8.	The Stone-marten (Martes foina intermedia) ...	... Kogar
9.	The White-footed Weasel (Mustela altaica temon)	... Lhakhimo

Note :—*n* is to be pronounced as in Pang in (nasal)

I was rather amused to read in the Indian Forester of May, 1959 in "Wild Life in Kashmir" by E. P. Gee, a short remark regarding the state of fauna in Ladakh. "High elevation fauna, such as that of Ladakh, are reported to have increased in numbers due to absence of indiscriminate shooting. These species include Ovis ammon, shapo, ibex, Tibetan antelope and others. The snow-leopard is definitely on the increase and said to be destructive to ibex, shapu and others."

The state of game preservation in the Ladakh district is not at all satisfactory as people imagine and in fact, game is on the verge of extinction.

To give a clearer picture, I shall have to switch back to pre-independence days and trace a little of history.

The vivisection of India was responsible for rendering thousands of people homeless and the Rehabilitation Ministry is even now busy in giving shelter and food to the homeless and hungry mouths. But nobody ever imagined the impact of partition on the Tibetan antelope, Ovis ammon, ibex, shapu and bharal, perched up on the roof of the world, hundreds of miles from the borders of Bharat and Pakistan, the scene of the tragedy. People might be under the impression that they might be having a peaceful life, as the British sportsmen, mostly army officers, had gone back to England and Indians are busy in the development of their country under Five Year Plans, but it is not so.

In the first week of February, 1948, large bands of raiders consisting of Gilgit Scouts, Chitralies, Frontier Constabulary invaded Skardo region, over-ran the State forces pickets at Kargil and occupied the Indus and Dras, Suru, Shayok and Zanskar Valleys. The raiders advanced towards Leh, the capital of Ladakh, which was threatened. To meet the threat, the Indian Army immediately sent a small force by land and air to reinforce the small garrison at Leh. Early in November, 1948, the Indian army from Kashmir side made a historic attack in snow and blizzard over the enemy pickets at Zojila and the enemy was routed. Dras and Kargil were re-captured on 15th and 23rd November, 1948 respectively. The Leh force soon linked up with the Zojila party and thus the back-to-the wall defence of Leh ended in a victory. The fight and combing out of enemy pickets continued. By early July, 1948, the United Nation's Commission on Kashmir landed on the Indian subcontinent and on the 1st January, 1949, 'cease-fire' was declared. Subsequently a 'cease-fire' line was fixed and published, dividing Ladakh district into two parts.

The Ladakh district on this side of the 'cease-fire line' except the east of Leh, remained under the raiders occupation for nine months or so, during which hundreds of poor animals, male and female, were indiscriminately killed for fun or for flesh. During this period much arms and ammunition came into the hands of the local people, who also tried their skill with

powerful army weapons on the poor animals, till they were reclaimed by the army. Ladakhis by nature are hunters and sharp shooters and relish wild game.

On the fall of Koumintang and occupation of Tibet by the Peoples Republic of China the Government of India posted Indo-Tibetan border police to guard the long frontiers.

Due to the above facts, the places where not a single report of a gun was heard for ages, now abounds in modern powerful destructive weapons.

When I visited Ladakh in 1949-50, unrestricted poaching and indiscriminate killing of male and female game animals and birds by both civil and military was rampant. During my official stay of five years in Ladakh, I have to my credit the stopping of the murder of many poor dumb animals, in the lactation period or otherwise. Once an army officer killed a female shapu in the plain between the Indus and Stog village—when he ripped open the abdomen a baby fawn came out!

Game preservation in Ladakh or elsewhere is a difficult problem. People, high or low, educated or uneducated (with the exception of very few) will relish a roasted chikor, a roasted leg of shapu, ibex or musk-deer, killed by a poacher or even in the closed season. Forest officers, the custodian of wild game, are no exceptions: even forest officers reputed to be honest will not hesitate to accept a chikor, a pheasant or a skin of some prohibited animal or a pod of musk from a poacher or his subordinate. This is rather sad!

Is this instinctive or hereditary? People of Ladakh are no exception to this. Buddhism, the religion of *Ahimsa—Parmodharma* was not able to change the racial habit and dietery of the Tibetans. Ninety percent of Tibetans (including Ladakhis) are meat-eaters. So without propaganda and stricter control on arms, ammunition and licenses and the co-operation of the army, the future of the game in Ladakh district looks grim!

S.S.G.

Musings Of An Erstwhile Poacher

I can still clearly recall those glorious days, over a decade ago: my brother and I, schoolboys then, heavily laden with cumbersome rucksacks full of an odd assortment of camping gear, walking through the forests at the base of the hills from Rishikesh to Tanakpur. Poaching 'for the pot' was done with much impunity and ingenuousness. I am not unaware that poaching is reprehensible, but speaking quite candidly, despite a now well-nigh fanatical regard for the proprieties of shikar and life in general, I can't help a feeling of justification in the (highly irresponsible) actions of my younger days. The very naive spontaneity and olympian disregard for authority which we displayed seems, somehow, an extenuating factor sufficient to forgive us the transgression of human laws. It was an inherent outpouring of the 'pioneer' spirit which sent us into the forests with our solitary Stevens single-barrel gun. We carried our own bivouac tent and sleeping bags. Our staple diet was the red jungle fowl, with welcome interludes of kakar. Camping as the evening overtook us and making numerous excursions on the way, our shooting was a mere 'incentive' which impelled us on, though the real purpose was concealed even from ourselves, as it is I believe from most shikaris! However, of that more anon.

I would never have the temerity to air these views, certainly never in a 'conservation' magazine and thus earn the contempt of preservationists, were I not convinced about the value of wild life preservation and what I have to say. For those six weeks were the most thrilling weeks of shooting I have ever known. The bag was such as many of the uninitiated would scoff at, but that is where we can draw some valuable conclusions as to the factors which make for good shikar, which will put us in a better position to obtain those thrills without the transgressions which accompanied them in this instance.

All wilderness pursuits and in this term I include mountaineering, fishing and hunting, are considered, ideally, a kind of spiritual education and enlightenment. Lest the hasty pragmatist accuse me of metaphysical abstruseness, let me add that I do not mean this in the narrow sense, but so as to elevate these activities from the plane of callous trophy-hunting or prideful and technical climbing for the sake of vanity and fame. Unfortunately such degradation of these noblest of pursuits is only too common! The enjoyment of shikar and kindred activities, I further contend, is not in the *bag* but in the natural associations: the soul-satisfying thought that much of God's earth is preternatural still, nuclear power and satellites notwithstanding; the physical ecstacy of flowering trees and ice-cold waters, of thunderstorm and the far view; the contentment and pristine lure of strenuous tramps and tiring vigils, of cool shade and merciless sun. There are even greater attractions in the mountains, but of

those I shall not speak here. It is these factors and above all, the thrill of stalk and the chase, that draw the best of us back to the forests.

Granted that it is contact with Nature which matters most, it is clear that we must increase such intimacy with both the terrain and the quarry in order to maximise the pleasure we derive from our sport. To my mind, such intimacy is incompatible with jeeps and large parties. A score of beaters, dust flying in the wake of a jeep, extended and not always learned, arguments about the intricacies of a 'cross-shot'—all these are very effective in dispelling notions of ideals and adventure, while the inevitable result is an unofficial and graceless competition for the largest 'bag' with the fewest shots.

However, even if the more sociable shikari, hard-pressed for time, be granted his reservations in regard to the use of jeeps and his preferences for a large party, the position of the night-shooter remains indefensible. About him there will be no disagreement. But I even maintain that elaborate beats take away the best from shikar, that stalking is the very essense of it and stalking is quite out of the question in a big party. To go alone, perhaps with another companion, to practice stealth and intuition like our cave-men ancestors before us, to learn things first hand and to savour the music inherent in all nature: than this there is no finer sport! Nature keeps little in the show-window to attract the cursory observer, but her larders are full-stocked with a thousand times more and better stuff.

But how many look for the treasures that lie behind and beneath superficial thrills? How many see the forest with the clear eyes of enthusiastic schoolboys, to whom every tree and blade of grass conceal aeons of pleasure and excitement? Our blase and sophisticated attitude renders even the best of shikar stale and flat. And automation and the 'amenities' which are the gods of our century, complete this process. With some exceptions no doubt, most persons who use modern contraptions for shooting do so out of an inability to renounce luxury that ever beckons, as against what they know in their hearts to be the right thing. Surely this shows a weakness of character which no true sportsman could possibly have, for sportsmen are ever the strongest and most determined and righteous characters.

I know this sounds too like a sermon, but the least I can do is communicate to others the insights I may have gained during my poaching days. Then at least my poaching would not have been quite without some lasting benefit.

H. K. Dang.

The Antler Duel

This narrative is an attempt to portray in words a shikar episode of a rather rare and unusual kind, witnessed by the writer during the early years of his forest career. It brings out in an intimate way how *sambhar* stags fight for the possession of their harem and in doing so sometimes meet with an untimely end. How the carnivora behave towards their prey and make use of opportune moments to hunt them down is also described.

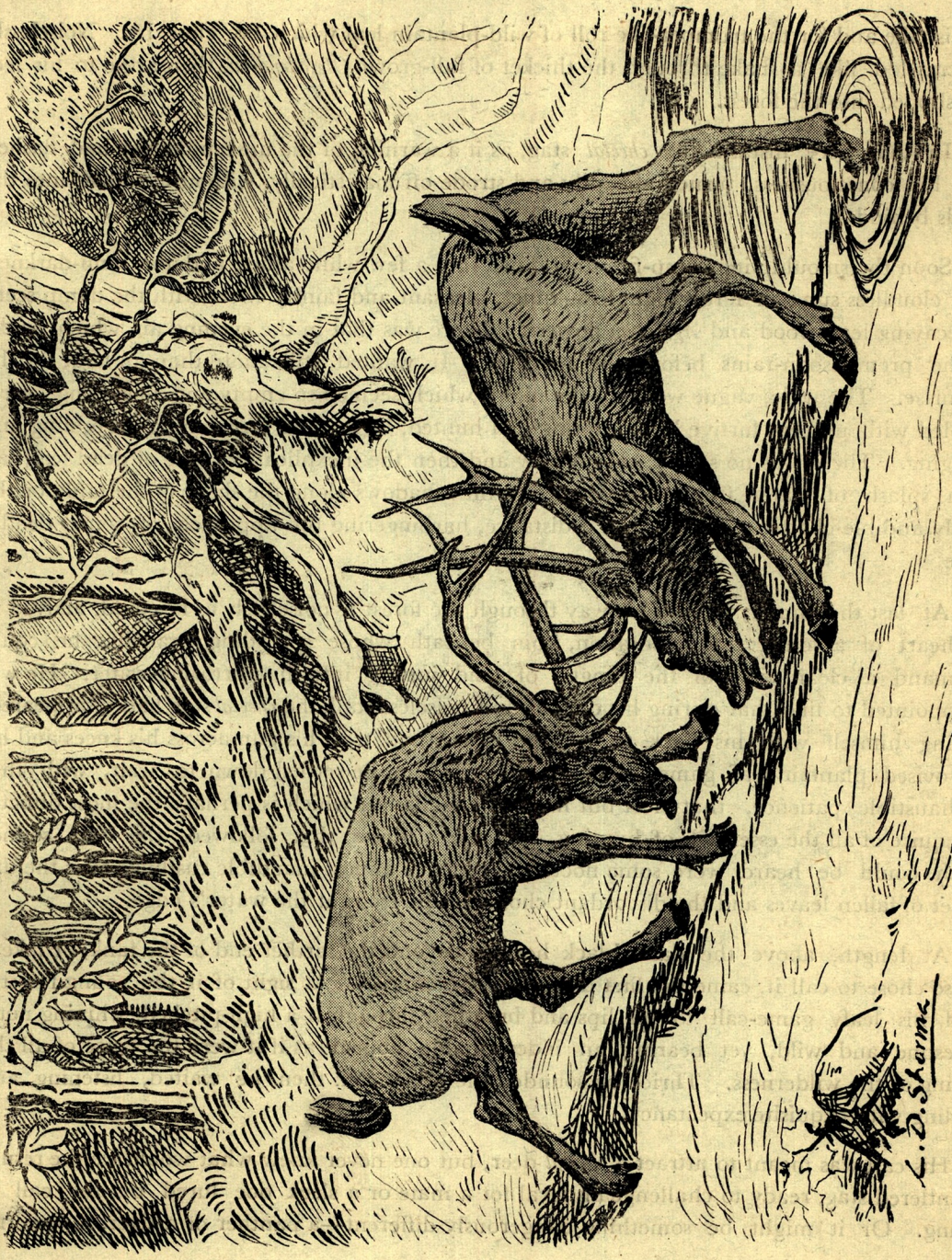
The episode took place on Sylvester-eve of the year 1929, at a forest-tank close to the Mysore-Coorg frontier.

"Nature Herself her Shape Admires
The Gods are Wounded at her Sight."

So wrote a poet, whose heart overflowed with admiration at the grace, beauty of form and dignity of bearing of one whom he saw for the first time and loved ever afterwards. How aptly do these words apply to the deer tribe living in our forests, when seen amidst sylvan settings. To one who knows how the monsoon rain brings foliage to the bleak branches of trees of our leafless jungles and who claims to know as much as most hunters do about the graceful *cheetal* or the massive *sambhar*, this story will appeal.

This incident is concerned with and has for its setting, one of those lonely, woodland tanks which dot the deciduous and evergreen forests in South India, their surfaces smooth as mirrors between their flat, almost desolate shores, spreading copper, amber and brown towards the cloudless pink and orange sky, when the sun is just setting behind the Western Ghats. All along one side of this tank the shore lay as an unbroken stretch of treeless barren; on the other side, the low, dark-serried ranks of the teak forest advanced almost to the water's edge, the tree tops rising like ancient, weather beaten minarets against the warm blue sky. From this shore jutted out a tongue of land, straight into the waters of the tank. On this land extremity, his magnificent outline and lofty head black against the pellucid, orange glow of the western sky, stood a large, full-grown *cheetal* stag, modelled in bronze. His shapely muzzle was thrown straight out before him, as if he was about to bellow a challenge, while his tubercled, symmetrically branched antlers were laid back on his shoulders.

Far on the opposite edge of the water a solitary huntsman in his prime of life, lay beside a smouldering fire on which he had warmed his pack-lunch and gazed at the splendid silhouette. He was yet a green hunter and that magnificent buck was his quarry. Where he lay he was invisible against the dark back-ground of tree and bush. Presently he reached



The duel hung critically in the balance.

for his rifle and for the trumpet-like roll of wild-plantain leaf which lay close by. Noiselessly he crawled like a snake through the thicket of full-grown *Clerodendron*, then arose to his feet and slipped into the forest.

In that very instant the *cheetal* stag, as if a warning of the unseen danger had flashed into his consciousness, turned abruptly and strode off majestically, without a sound, into the woods behind.

Soon the smouldering camp-fire died down into a few white ashes, and the semi-darkness of a cloudless summer forest night fell—quiet, pleasant and faintly sweet with the damp scent of decaying leaf, wood and *Ageratum* flowers. There was that in the evening air which spoke of the premonsoon-rains before the morning. It wanted still more than an hour for the moonrise. The wide, vague world of the night, which seemed so empty and unstirring, grew peopled with unseen, furtive life—hunting and hunted, loving and threatening, trembling and avenging. There was no sound, except now and then the inexplicable rustle of dead leaf, an elfish splash of water from somewhere in the shadows along the shore of the tank, or the faintly audible chatter of monkeys at a distance, harbingering the approach of some deadly feline.

At last the hunter, picking his way through the forest as noiselessly as he could, arrived in the heart of a young teak plantation, from beneath whose spreading branches he could command a clear view of the tongue of land jutting into the mirroring-water. He was disappointed to find that during his careful and noiseless stalk the *cheetal* stag had disappeared. Seating himself with his back to a large laurelwood tree, his gun across his knees and his improvised, plantain-leaf, game-call trumpet beside him, he settled down to wait, with that inexhaustible patience, that alert but immobile vigilance, which is perhaps the most difficult to acquire of all the essentials of hunting. In the stillness that followed, the only sounds which could be heard were some nocturnal rodent's almost inaudible rustlings over the dry carpet of fallen leaves and the discordant chorus of the frogs at the water's edge.

At length, above the dark black horizon beyond the farther end of the tank, or lake if one so chose to call it, came the first dull glow of moonrise. At sight of it the young forester lifted his leafy game-call to his lips and breathed through it a high-pitched, whining note, grotesque and wild, yet bearing an indescribable appeal as if it were the voice of all the longing of the wilderness. Thrice he sounded the deer's call: then he waited, listening and thrilling with exquisite expectancy.

His call was meant to attract a *cheetal* deer, but one never knew what would be the result: an antlered stag, ready to challenge his rival for a mate or a sleek doe lured by the call to mating. Or it might be something dangerously different—a panther or a tiger, a powerful

old male, who had learned to spring upon a *sambhar* and break its neck with one stroke of his armed paw. In such a contingency there is apt to be excitement: for when a tiger or a panther undertakes to stalk a full grown *cheetal* or *sambhar* stag, it gives no notice of its intentions! The first warning of the approach would be the final, savage, rush upon the utterer of the false call. For such a contingency the hunter's weapon must always be ready.

But, on the other hand, there might be nothing at all—no response whatsoever, all through the long, warm, moon-silvered night, summon the game-call pipe ever so craftily. And this was what the young hunter thought had happened as the result of his calling.

But had he chanced to look over his shoulder, he might have known better. He would then have seen the shadows of the night take substance, condensing into a massive, solid shape just behind the laurel tree against which he sat—the fringe of hair around the feline head with its raised muzzle, the large alert eyes, in which as they spied the hunter in his ambush, the sudden instinctive flame was quenched by the timely wisdom of fear. But the phantom, striped shape of the tiger dissolved back into shadow and the hunter never knew that he himself had been stalked and considered for prey until the next morning, when the large pug-marks leading up to the tree told their own story.

After a long silence, the plantain-leaf pipe sent forth another appeal. Loud and long it called, then murmured a series of caressing notes pleading yet importunate, as of a deer hind to its lord and master. After a while, when the hunter's patience was all but exhausted, from the thick, pitch-dark shadow just below the tongue of land came a snap of a dead twig, then a rustle of dry leaves accompanied by the brushing of branches as some animal moved towards the open. The hunter was now fully alert and with heart pounding he leaned forward to see what would emerge from the bush.

To his surprise, it was no *cheetal* at all but a *sambhar* doe, looking almost ashen in the level rays of the now half-risen moon. She was followed by another female, noticeably bulkier than herself and then by a large stag. He was in stature a mighty specimen of his kind, the heavy greyish head, neck and shoulders casting a heavier shade in contrast to the dingy brown of the rest of his coat. His antlers, though large, were unevenly grown and so obviously imperfect that the young hunter, who was anxious for a trophy and not for meat, hesitated to shoot. He decided to bide his time and try for a more perfect specimen, as the hunting rules of this part of the country allowed him only one *sambhar* head for the season.

For a long minute the stag stood staring across the waters of the tank, as though hesitating whether to swim to the opposite side, while his two does watched him with dutiful attention. Whatever the object, however, it was never revealed for suddenly there came a new and more impetuous crashing sound in the forest undergrowth and the startled heads of the

little herd turned to see what was approaching. An instant later a second *sambhar* stag, about the size of the first, but rather darker in colouring, broke through the bush into the open. He pushed about half way up the tongue of land, then stopped, bellowing and blowing defiance. The new-comer wore a magnificent head of antlers, shapely and strongly set, but the young hunter had forgotten the use of his gun in watching the drama which was now un-folding before him in the moon-lit glade.

The grey stag and the avowed lord of his harem, surprised by the unexpected challenge, stood for a moment staring blankly, waving his great ears. Then, all at once the hot blood of possession seemed to go to his head. Rushing past his two mates, who stood hesitating, with a furious snort, he lunged forward to meet his adversary.

With lowered heads, noses between their knees, and the branching tips of their antlers presented straight to the front, they came together with a shock and a snort, much like the knights of old whose metal spear-heads met the nailed shields of their adversaries as their galloping steeds came together in the middle of the fighting arena. The hardened horns of the *sambhars* clashed with the dry resonance of seasoned timber. Being about of equal size and weight, both withstood the shock well. They staggered, but recovering themselves in a moment, they met again and stood pushing against each other with all the might of their straining, heaving bodies, their hooves digging deep into the yielding earth.

Then, suddenly, as if by common consent, the two disengaged at the same instant and withdrew like wary fencers, as if the same idea had, at the same instant, flashed into both their furious minds. For a few tense seconds they stood there, eyeing each other, their antlers poised for attack, while the troubled and wide-eyed does, their ears nervously waving, looked as if it seemed that their only concern was that the most deserving stag should win. The moon, now full-risen, flooded the scene with its silvery beams, imparting to it an almost unreal touch.

Suddenly the newcomer, the dark stag, took the initiative in an effort to break through his adversary's guard. He swung to his right, then lunged straight forward. But the grey stag was too experienced to be caught by such a well-known ruse. He met the attack squarely. Again their antlers clashed. Again those laboured pantings and savage grunts rose above the forest stillness, as the well-matched antagonists heaved and pushed, their hind legs straddled awkwardly, their hooves ploughing up the mud.

Once the grey stag put one of his hind legs into a hole in the mud and his pressure gave way for an instant. He was forced backwards almost to the water's edge, but with a tremendous effort, he regained the lost ground and even retrieved himself. Both the stags, now nearly out of breath, paused again. The duel hung exactly in the balance.

To reckon from his antlers, the grey stag was the older and, therefore, as one may suppose, the craftier duellist. It occurred to him now perhaps, that against an opponent so equally matched in strength and prowess, he must seek some advantage in strategy. He made a sudden effort to disengage his antlers and jump aside. To the trained eyes of the young hunter, watching from the thicket, his intention was obvious. But it failed in an unexpected manner. At the very moment of the effort to free himself, his opponent also surged forward with violence, but not meeting with the resistance he expected, he was taken by surprise and stumbled to his knees. The older bull, quick to feel his advantage, instantly changed his purpose and shot forward with all his force. For an instant the dark stag seemed to crumple up as his rival's heaving shoulders towered above him.

Now this was the grey stag's chance for victory. It was his opportunity to roll his adversary over, disengage, rip his younger opponent's flank and belly and tread him down into the sand. But he did nothing of the sort. He himself staggered forward with the fall of his opponent. Then he drew back again, but strangely, as it seemed to the watcher, his opponent seemed drawn to his feet simultaneously !

Suddenly the truth dawned on the hunter, as he closely scrutinised the two opponents while they stood, front to front, straining and heaving but neither able to make ground or give away.

"Antlers locked"! cried the hunter, forgetting himself, for this was, indeed, the fact ! The cry startled the adversaries, locked in mortal combat, and they sprang apart—but failed to separate. A slight pause for breath as if uncertain of themselves, and then suddenly both at the same moment realised the sad plight into which they had got themselves. Both animals attempted to back away almost at the same instant and in the next started tugging frantically to tear themselves apart !

But struggle as they might their expenditure of animal energy was utterly in vain. The tough, strong lines at the extremities of their full-grown antlers were sufficiently elastic as to yield under the impact of that last charge and just shaped for perfect locking. But in the opposite direction they would not yield, not even a millimetre. The two stags were inexorably and inextricably locked together.

In the horrible, pulling duel which now began afresh, the older stag had the better of it. He had slightly the advantage in weight of his years. Slowly but surely he dragged his heaving rival out along the isthmus of land towards the water's edge, while the two females, now thoroughly alarmed and dismayed, bounded bounced past their doomed suitors with indistinct sounds and vanished into the jungle. A moment more, and the grey stag had backed off the land into the water, which rose almost up to his belly.

The shock of this plunge seemed to startle him into renewed rage and gave him a new spurt of strength. He reversed his efforts and forced his dark opponent backward with such a tempestuous thrust that the latter was hard put to it to keep himself on all fours. He in turn pivoted round and thrust forward with the strength of desperation, driving his older adversary back along the lake edge at a tremendous pace. Presently the grey stag, who had now lost the initiative, found himself at the edge of the woods, his hind feet in a tangle of trailing climbers instead of on firm ground. Exhausted and cowed, his legs gave way and he sank back upon his haunches. Desperately he struggled, however, to butt and strike with his entangled prongs, and in his futile struggle he fell over to his side. The dark stag, his spurt of renewed vigour now came suddenly to an end, was dragged down along with his rival, and the two lay with their heaving flanks, panting noisily.

The hunter had taken up his gun. He was just preparing to step out of his ambush and mercifully end the matter with his weapon, when there came a startling intervention, and he realised that he had not been the only spectator of this mortal combat.

Out of the thickets at the lower edge of the tank emerged the magnificent form of an enormous tiger, whose coat flashed as it threw back the fleeting rays of the full-moon. With huge paws uplifted, he plunged upon the exhaused duellists and with the first blow broke the neck of the grey bull which was nearest to him. Turning in the next instant to the other deer, which could only gaze at him with rolling, fear-stricken but hopeless eyes, he clapped his paws on either side of its neck and sank his fangs into the upturned throat. In the next instant the hunter's gun blazed forth in reverberating thunder. The tiger, shot through the neck with an explosive bullet, dropped in a sprawling heap across the tangled bodies of his victims!

The tense hunter approached and stared for a while at the three lifeless bodies resting on the soft lake-edge. Then he let his glance sweep over the glassy waters and the level, desolate shore. How different was the sudden stillness and the pale-white peace of the moon-light from all the tumult and rage of war, of animal jealousy and attrition, so abruptly ended ! A curious feeling of revulsion and pity overcame his sense of satisfaction at his successful hunt. There came over him a rising repugnance at Nature's moods. Stepping around the still warm animals as they lay in their death throes, he sat down on a fallen piece of branch, his face turned to the setting moon.

K. Kadambi.

"How Our Wild Life is being Depleted"

(Reprinted from *Indian Forester*, June 1958, Vol. 84, No. 6)

PARAD OR BUTCHERY OF WILD LIFE IN BASTAR

BY D. G. SHARMA

"We must restrict the shooting of dumb denizens of our forests for at least ten years so as to rehabilitate them with their natural heritage".

PT. SAMBHU NATH SHUKLA,
Minister of Forests, Madhya Pradesh, Rewa,
Dated, 14-9-1957.

SUMMARY

The article describes "*parad*" — the festival of ruthless destructions and massacre of wild animals by the local *adivasis* as a matter of right in Bastar Forest Divisions of Madhya Pradesh and suggests measures to change the pattern of celebration of this festival.

In writing about Bastar District of Madhya Pradesh, it is always interesting to have some idea about its statistics. It has an area of 15,091 square miles. 60% of the area of the district is under forests, 67% of its population consists of aboriginals and the density of population per square mile is 63. The forests of the southern half of the district are not under intensive working. The forests are thus virtually a paradise for the wild life to breed and multiply, and actually this tract was well known in the past for the various type of wild game like tiger, panther, bison, *sambhar*, *chital*, various types of jungle fowls and fish in the streams. The main attractions were, however, the wild buffalo, *barasingha* and the Bastar *maina*, which are rare in other parts of the country. Old records show that even the elephant and the rhinoceros used to frequent these forests in the past. The position is now totally different. There is an all round paucity of wild game in these forests and if the present state of affairs continues then the day may not be far off when wild life will be extinct in the forests of Bastar.

The areas of the district which constituted the princely State of Bastar before 1948 are inhabited by aboriginal tribes like *muria*, *maria*, *bhatra* and *parja*. These *adivasis*, as elsewhere, are simple folks easily misled by various superstitions. Every year before the sowing of *kharif* crops like paddy, maize etc., they celebrate a festival called in the local dialect *parad*,

which means ritual, vernal hunting of game. This religious hunting goes on for about 2 to 3 months.

There are three types of *parad* but the principal one is called as *badi parad* or *wija wetta*. In this many villages combine together and do thorough beating of the forests by *haka*, or setting fire to the forests and putting nets and snares of all sizes across the path of the animals. In this way many wild animals are captured and killed. No rules regarding the number, sex, legal status of forests and methods employed in hunting are observed. Bows and arrows, spears, axes and muzzle loading guns granted under crop protection licenses are the common weapons used. The nets are arranged in a line about five feet above the ground on bamboo props and secured at intervals to trees. Some distance away behind the nets the *adivasis* make shelters of leaves about fifteen yards apart carefully camouflaged from the front and in the shelters groups of four or five of them stand motionless. They do not move till an animal is clearly entangled in the net but then there is rush of men to have the honour of spearing it first. In the other case the hunting is done in regular beats and animals killed by arrows and gun-shots. All type of wild game is killed, and nothing is spared. Even tiger, bison, wild buffalo, panther and bear are hunted. Many a time tigers escape with wounds and become man-eaters, causing havoc subsequently in the interior. Cases of man-eating tigers are on the increase and every year about 150 persons are killed by them. The number of the animals killed in the *parads* by these adept hunters runs into hundreds.

These ritual hunts are organised from March to May every year. A hunt is started on a Sunday or Wednesday of the full moon period in March (*Chaitra poornima*) or full dark night (*Baisakh amawasya*). Large quantities of country made liquor are brewed from rice or millets (*landa*), *mahua* liquor is mostly purchased from the liquor shops with the addition of *sulphi* (*Caryota urens*) liquor that may also be available to them from the trees standing in their fields. Sexual continence is the rule for the night before the festival begins and is ensured by all the men sleeping together at night at the village worshipping place or at the place from where the ritual hunt is started (*kadribera or wijj-erhu*). The village priest (*perma*) fasts next morning and after the men of the village have had their morning meal, they all go at about noon to the worshipping place with cocoanuts, rice *sindoor*, eggs, liquor and cocks. Every villager takes with him a small packet of seed of paddy or any other millet. The place is cleaned and plastered with cowdung. A *mahua* branch is planted in the ground, all the hunting equipment and packets of seed are placed before the altar and the religious rites are performed. *Sindoor*, cocoanut, rice liquor and eggs are offered in the name of *Ban Kunwarins* or village mother. The cock is sacrificed and the blood is allowed to soak into the packets of seeds. The *perma* then lies prostrate on the ground facing east and prays for a successful hunt without casualties and for adequate and timely rains for the crops. Before the start of actual hunt, splitted halves of a tooth-stick *datun* are thrown three times on the ground and

the falling of these halves in the shape of an X is considered a good omen, while their falling apart is considered a bad omen for the *shikar*. The noses, ears, tails and legs below the knees and hocks of the animals killed during the hunt are offered to the Goddess by tying them with ropes to the roof posts of the village temple. In the jungle the offering is made to the Goddess in the shape of chopped pieces of the parts on *saj* (*Terminalia tomentosa)* leaves. The remaining portions are divided among those present; the *perma* and the man who killed the animal receiving the privileged and additional share. The flesh is then cooked in the worshipping place itself and eaten along with rice. After food, heavy doses of country liquor are imbibed and then starts the usual singing, dancing and merry-making for which these *adivasis* are famous. This goes on till they tire out. The *parad* in this way is celebrated for 2-3 months. When this festival is over, the blood soaked seed is sown in the field before sowing the normal crop, care being taken that this sowing is overlooked by none.

The role of women in the *parad* celebrations consists mostly in the merry-making. They drive their men out for the hunt at the beginning of the ceremony by throwing cowdung, mud and dirt on them. They take part in the singing, dancing and merry-making that takes place at night when the men get their own back for the abuses with which the women drove them out. There is no taboo on observing sexual continence during the course of the long period of *parad* celebrations.

The Administration of Bastar State had viewed *parad* with strong disapproval and in 1908 had promulgated various rules to check the reckless massacre of wild life in the name of religious ritual, but the *madia* rebellion of 1910 came in the way of enforcement of these rules. In 1944 the State Administration brought into force the following rules regarding *parad*, the violation of which made the offenders liable for collective and individual punishment, with fines up to 500/- or six months imprisonment or both :—

1. *Parad* shall not be celebrated for more than five days.
2. More than five villages shall not combine in a single *parad.*
3. The hunting shall not be done in the reserved forest.
4. Guns shall not be used in the *parads.*
5. The rare species like bison, wild buffalo, black buk, and *barasingha* shall not be killed.
6. The antelope in fawn and females shall not be killed.
7. Only one male *sambhar* and one male *chital* shall be killed in one *parad.*

It has been noticed that *parad* is being celebrated every year after the merger of the State with the Indian Union and has been recognized as a *nistar* practice for the *adivasis* of

this tract. The *adivasis* are prepared to undergo any punishment but will not follow any rules and it is not an easy task to stop them during these ritual hunts, as they are very dangerous during this period under the influence of liquor. The practice of human sacrifice is also prevalent among the *adivasis* of this tract and few would risk their lives for love or money and therefore many *parads* go unreported and hardly anything is known of the number of animals killed.

It is evident that the celebrations of this festival over such long periods is a national loss of wild life. The *adivasis* can utilize the long period of 2-3 months for various productive works for raising their standard of living. The loss of the wild life may not be felt by them now but will be the source of regret in days to come to lovers of the wild life and the *adivasis* themselves when no wild life worth the name will be left in the forests.

The question arises as to why this practice may not be stopped either through legislation or executive order of the Government. The reply is that the stopping of a festival of a community, more so of backward tribes, by legislation is a difficult task. The origin of this ritual arose thousands of years ago out of sheer necessity for food when agriculture practices were unknown, and subsequently when cultivation was taken up, by the necessity for reducing wild game which damaged the field crops and killed the domestic animals. Again the natural urge of man from the stone age for adventure and for matching his skill against the powerful, swift denizens of the forests made him resort to this practice in the non-agricultural season when he had nothing else to do. The routine over an unknown period of years became a religious festival and has in fact become a part of the very life and culture of the *adivasis*. Although it is seen that the present trend of the festival has more a touch of lust for the flesh, yet the blind faith about it has taken root in their minds so much so that even if there are fatal mishaps and accidents during the celebrations no report is made about it to the police. The relatives of the deceased also resign themselves to their fate and accept their loss in the spirit of fatalists. Again the *adivasis* have the general belief that shedding of much blood on the ground foreshadows plentiful rainfall and a rich harvest.

Thus it is clear that the basic approach of the *adivasis* to the celebrations of *parad* is that of superstition and is not in conformity with the changing times, but it is certain that it is difficult to wean them away from the practice all of a sudden and without convincing them of its utter futility. The sudden stopping of the festival will, moreover, not be reasonable and may also incite and mislead them. They should be weaned of this habit gradually. What is essential is large scale propaganda, both political and religious, to convince the *adivasis* of the all round waste in the celebration of this festival and to persuade them to change the pattern of the festival by the sacrifice of goats and fowls only for the purposes of the religious ceremonies. Government may thus ban this large scale hunting only after creating an atmos-

TIGER KILLING BUFFALO

Block by courtesy of the Indian Forester.

THE MIDNIGHT PROWLER OF MUSSOORIE.

phere for the reform by creating a strong public opinion about it. But it is certainly anamolous to allow this systematic butchery of wild game to continue after having observed Wild Life Preservation Week and after having taken the oath of protecting the silent denizens of the jungle !

The End of the Phantom of Mussoorie.

In the picturesque setting of Happy Valley in Mussoorie there was, last summer, an animal, or 'phantom' as some local residents called it, because of its remarkable ability to suddenly disappear from sight, without sound or movement. A sweeper swore, on all he considered holy, that it was a phantom, with great eyes, big and powerful like a tiger; it stood for a few seconds in front of him, when he was returning home at night and then just disappeared in front of his eyes, as if it had sunk into the ground !

The officer-in-charge of the Happy Valley police chawki told me that his men had seen a huge animal at night; they could not say what it was but, as a measure of safety they had had to shut their doors and hope for the best. His greatest problem after this incident was to stir out at night for night patrol in his area witthout a gun.

I resolved to find out the truth of this 'phantom'. I looked at the ground with care, and found the big pug marks of a panther. It is very common for panthers to prowl at night in habited areas for stray dogs, which are a delicacy for them. But there was a difference: this panther was bolder than the rest of his race. He would even dare to enter houses when necessary, prowl in the verandahs or climb on the roofs, to be able to study the position of house dogs through the ventilators perhaps.

In the day he went into the jungle of my estate "Mann's Estate", and sometimes miles away into the hills in search of sheep, goats and cattle or the sure footed wild *ghoral*.

On one occasion a *pahari* came to me with a report that the panther, which was big as a tiger, had climbed on to the roof of his hut where cattle were tethered and dug into the thatch of the roof to make an opening into the cattle shed—this frightened his cattle who ran out and the leopard caught his best cow. The carcass, he said, was now lying in his field in front of his house half eaten. He said he would make a machan for me and offered any

other help if I would shoot this animal for him. I was not well that day and declined to go, although the kill was only about a mile from my house.

This incident had almost been forgotten when another occurred to remind us that the panther was still about. In the middle of a village a family were having their dinner and their dog was sitting close to them. There was a leap from the wall above their compound, the dog was caught right in front of their eyes and the panther leaped down the hillside with his victim and disappeared. All the other dogs of the vicinity disappeared like this, one by one, and in the course of a few weeks I could not see any stray dogs.

I have two valuable pedigreed dogs, an English springer spaniel and a yellow labrador and I started locking them up for safety at sunset. This panther, which had been watching my dogs from a distance for a chance to take them, knew what I was doing. He had a place on the hillside, behind my house, by the side of the rock where he would sit. In this way he was only about twenty feet above the dogs when they were taken out for the last time before being put away for the night. The boldness of the animal can be imagined from the fact that one evening when it had just got dark he sprang on to my wife's cat in the back verandah of the house. The cat cried out and I heard the noise of the leap. I ran out and he left the frightened cat, which being of his own feline species had proved to be as quick as he was and had managed to escape between his legs !

His next victim was my chowkidar's black Alsatian. To get this dog the panther went through my verandah and caught the dog within three feet of the chowkidar and carried him away. On other nights he pushed our dining room door to get inside the house for our dogs, but could not open it and from time to time he would circle our entire house on the roof, the noise of his feet awakening us.

His last and final kill was a bullock about eight miles from my house in the hills, belonging to a villager of Kindi Gaon. The *pahari* came to inform me and said that this bull was killed and dragged from under the roof of his house. The panther on a previous occasion had entered his house and dragged a goat which was tied to his bed and in the process his claws got entangled in the *pahari's* bed sheet which also went with the goat. This time the panther drank the blood of the bull after killing him inside the house a few feet from an old man who was lying in the same room. The animal was so daring that he killed the bull with his tail lashing over the old man, who was terrified lest the bull fell on him or the panther made a meal of them both that he feigned sleep and kept very still.

When the news of the killing of this bull came to me I hesitated to go because the place was so far away, my tents were in Dehra Dun and I would have to stay for the night. But my old servant Jharru Ram persuaded me to go by saying that he would tie a charpai

on the tree and I could sleep in this machan for the night. My servant and I packed lunch and provisions for dinner, a dekchi and a frying pan for cooking eggs, bread and tea for breakfast. I started with only my bedding and my 450/400 rifle with 20 cartridges. It was a stiff climb from Dhobi Ghat Khud and we reached the spot dead tired at 2 P.M. on the 30th May, 1958. We made tea and rested for an hour, after which we started making the machan, on the next terrace above the field in which the kill lay. We placed the machan in some thick bushes, there being no tree in those fields, nearly forty yards from the kill, although this was too far for night-shooting. The bull could not be pulled to the machan because no *pahari* would touch it and it was too heavy for me and my bearer to handle alone. I got into the charpai machan after my dinner at 6 P.M., ready to spend the whole night there and told my bearer and the *paharis* to go away, leaving me alone with the kill.

I had hardly settled down in the machan when I saw my bearer waving his hands excitedly and talking to the men. I looked in the direction and saw something that looked like a very big panther, golden red in colour, in clear outline, about 80 yards away watching us. It was still full daylight but I thought it was my imagination at first, may be a big rock. But as I was watching it carefully I saw one ear flick, to shake off a fly, just as a cat flicks its ear and I knew it was the panther ! Hope and excitement were such that my heart started beating against my chest like a sledge hammer. I waved to the servant and *paharis* to go away and was compelled to shout out to them because they were taking so long to go. The panther was so daring and fearless of men that the shouting merely sent him into the nullah. But he returned again to the same spot after a few minutes.

By this time it was 6-30 P.M. and the men had left for a place about two hundred yards away from the kill. Still very excited, with my heart pounding in expectation, I was now watching every movement of the panther. He sat there looking in the direction which the servants had taken and then straight at me. I thought he had seen me and I went deeper into the leaves. I did not move, cough or make the slightest noise. After sometime, getting bolder, he moved in the typical fashion ten yards further towards the kill and then sat down behind a bush to watch. When he again stood up I saw what a huge and magnificent animal he was. His spots on the chest and face were so well arranged that they looked like stripes and at one time I wondered if he was really a tiger. After waiting for ten minutes or so he became pretty sure that everyone had left. Up to this time he had not seen me and as he was quite accustomed to eat when villagers were watching him, it made no difference to him if they were watching him now. He came into full view and walked up to the terrace below me. I was tempted several times to put a bullet into him while there was clear day light, but as he was only one step from becoming a man-killer, I did not wish to take the least risk of wounding him. Besides, he was coming to the kill in any case. Still bolder, he

walked majestically into the middle of the lower field, rolled on his back, licked his paws, cleaned his face like a cat, and then yawned, showing his large teeth with mouth wide open and in sheer boredom stretched himself and once more sat down to watch the sorroundings. But this time he sat on his belly.

It was now getting dark and I was afraid I would have to use the spot light when firing when he got up and moved firmly along the side of the fields, came to within fifteen yards from the kill and sat down again, to my right. I could not see him there and thought he was watching the kill. Actually, he had come behind my charpai to inspect me before going to the kill. He sat behind my bed for a few minutes so close that I could hear him breathe. Thinking nothing of me he again came round to his original place to my right.

I now started cursing myself for not shooting him when he presented such a clear target in the day light. I was afraid it would be too dark now, but he did not disappoint me for long. Carefully and cautiously he stepped towards the kill and was now only a few yards from it, stretched full length, walking slowly and coming nearer to the kill. The light now had become such that I could only see him as the grey shape of a huge animal, but not his spots or stripes. He was now very careful and was listening to the slightest sound. When I put my rifle to my shoulder there would be the rustling of the butt end against my shooting jacket, which I was afraid he would hear. So I moved my rifle by stages to my shoulder to avoid all sound and movement. When he moved further towards the kill I brought the rifle up quicker and now the bead was behind his shoulder, just where I would like to place my bullet. I took careful and certain aim and then pulled the trigger. With the mighty roar of the 450/400 he rolled over dead ! To make sure I gave him the other barrel also.

We brought him home next morning just after dawn and hundreds of people from Mussoorie and the suburbs came pouring in throughout the day to see and photograph him. Thus ended the 'phantom's' career and the satisfaction and pleasure of shooting him will never be forgotten by me. Here was a panther which had become so daring that he feared no one. Though he knew I was on the machan (when he was behind me he must have been within a few feet of me) he thought I was unarmed, as all the other villagers he had encountered. Truly his day had come !

Gurkirat Singh Mann.

The Introduction of Game Species into a Country.

Hitherto the consensus of opinion, based on several examples of animals which were introduced into countries having got out of hand, is that the introduction of exotics is dangerous both from the point of view of the local species as well as because of the likelihood of their 'exploding' and multiplying in such numbers as to become a threat to man, his agricultural crops and domestic stock. Many examples can be quoted where exotics have, instead of proving useful, become really harmful. The classical example, of course, is the English rabbit, which when introduced into Australia, ran wild and became a serious menace to the grass supply on which the sheep breeding industry of the country depended.

In recent years, however, it has been realised, particularly in advanced countries like America, that if a species is carefully selected from the point of view of its suitability for introduction into an 'ecological niche' where there is no local species which is likely to be supplanted and danger cannot be anticipated to crops or live-stocks, the species can be profitably utilised. The whole basis of this implanting of species is the similarity of conditions in its original habitat and in its future home from the various points of views of climate, soil, vegetation etc.

The U.S. Fish and Wild Life Service has been, for many years, working on these principles and has introduced many species of game birds for the rapidly increasing hunting industry of that country. In the United States, game birds had disappeared from certain sections of the country with the clearance of the original vegetation, changes in farming methods etc. India, with its 80 species of resident game birds, compares very favourably with the United States, where the original fauna, which was in any case not prolific as regards the variety of species, is only a few local game birds. In the southern section of the United States, there are only five kinds of game birds, for instance. Many of the now popular game birds of the American continent were imported.

To-day there is in India a scientist, who is busy exploring the possibility of transplanting some of India's commoner game birds into the United States. Dr. Gardiner Bump of the U.S. Bureau of Sport and Fisheries and Wild Life Department of the Interior, along with his wife, has being engaged for the last 10 years or more in this task. Starting from western Europe, they worked their way through west Asia and into the Indian sub-continent through Afganistan and Pakistan. They are expected to be in India for two or three years and they have already exported a large number of grey and black partridges. Their programme involves scientific study and collection of trial consignments of common game birds, and their study under controlled conditions for food habits and disease etc. The final stage is a

period of trial acclimatization in the United States before the species is released into a suitable environment, where strict control of local predators, if any, and other facilities for their multiplication are provided.

It is proposed that the present field work should be limited to the grey and black partridges and to Indian sand grouse—the study area being the Rajasthan, the Delhi area, Punjab, U.P. and western Bihar south of the Ganges; the Assam black partridge—the study area being Bihar, within 30 miles of either bank of the Ganges; the black bellied sand grouse—the study area of which will be Bikaner and Jodhpur; the painted partridge, grey jungle fowl and red spur fowl—the study area for which will be the Bombay region, excluding the costal tracts. All these species are considered adaptable enough for trial and liberation in carefully selected American game reserves. Although, there is a certain amount of literature dealing with the distribution, abundance, habitats, food preferences, diseases, life history and relationship with agricultural crops of these birds, more information is required. To determine their food requirements in the new country, a small number of individuals of each species will be collected and their crops examined during the various seasons of the year. Examination of the food eaten and of the various diseases and parasites found in these game birds will, it is expected, be carried out by Indian scientists and the publication of the results will be of great value to India.

When the preliminary stage is over and sufficient data has been received regarding the suitability of a species for implanting in the United States, the next phase of the operation, which will consist of the capture of a number of live birds ranging up to 700 or 800 each year for two years, will be undertaken. The captured birds will be kept under observations for about two months in specially constructed pens, where diseased individuals can be eliminated. During this stage, the birds will be fed on special diet, which will result in their increasing in weight. Vitamins and drugs will be fed to them also, in carefully prepared mixes.

When sufficient healthy birds have been collected to make up one shipment by plane, the journey to the States will commence, the birds travelling in specially designed boxes with a full supply of food and water for the entire trip. On arrival in New York, they are held in quarantine for two weeks before they can continue their journey to State game reserves, refuges and farms. In due course from here they will be either released directly or after they have multiplied under controlled breeding conditions. It will be some years before they will be allowed to be shot in any numbers and that only after test-censuses have been made to ascertain their stock.

This science of introduction of game birds offers possibility of two-way action which should be of considerable value to India. The introduction of Indian birds into the more

arid sections of the United States, such as Texas, Arizona, Nevada etc., where new species are needed, will be of benefit to America. The possibility of our doing the same in India is also there. Many parts of our country are poor or completely barren of wild life. The propagation and spread of both local species, as well as of suitable exotics, is a possibility which should be examined by State forest and agricultural authorities. The relationship of such birds as partridges and quails with the common agricultural crops of India is not thoroughly comprehended. The good they do is, in any case, generaly over-shadowed by the alleged damage they do to our crops. The food value of such birds is not negligible and with the growth of—hunting in India, which is the logical outcome of the very large number of gun licenses being issued, the provision of an adequate supply of game birds and game animals, in the rural areas as well as in the forests of the country will gain in importance.

In the absence of central or state wild life organisations specifically charged with tasks of this nature, the outlook for an enlightened approach to the possibility of introduction of suitable exotics into India for sport and for food is very remote. The whole question hinges on the relative priority given to wild life in the country. At present the wild animals and birds of India are struggling for survival and are receiving very little assistance in this struggle. But is it not within the bounds of possibility that some day the picture will change, to the extent of there developing a search for species suitable for implanting in the country to serve both as food and as sport?

P. D. Stracey.

"Who's Who in Wild Life Preservation"

Lt. Col. E. G. Phythian-Adams, O.B.E.

Lt. Col. E. G. Phythian-Adams, who died in February 1959, was educated at Malborough College. He came out to India in 1904 and spent over 50 years here, serving all over India, Burma and in Ceylon. He took part in the World War and in 1924 retired in the Nilgiris. On the outbreak of the Second World War he volunteered for service although over-age and was placed incharge of the Madras State Soldiers District Boards, which he built up into a large organisation embracing some 600,000 families by 1948. He received the O.B.E. for his services in 1945 and on de-mobilisation he settled down again in Ootacamund.

Lt. Colonel Phythian-Adams took a very keen interest in the Nilgiri Game Association (the object of which is the preservation of game) and in game preservation. He was a member

of the Committee of the Association from 1923. He was appointed Hony. Superintendent of the Association in 1949 but resigned in 1950 owing to ill health. He was appointed Honorary Superintendent in 1952 and finally resigned with effect from 31-1-1958.

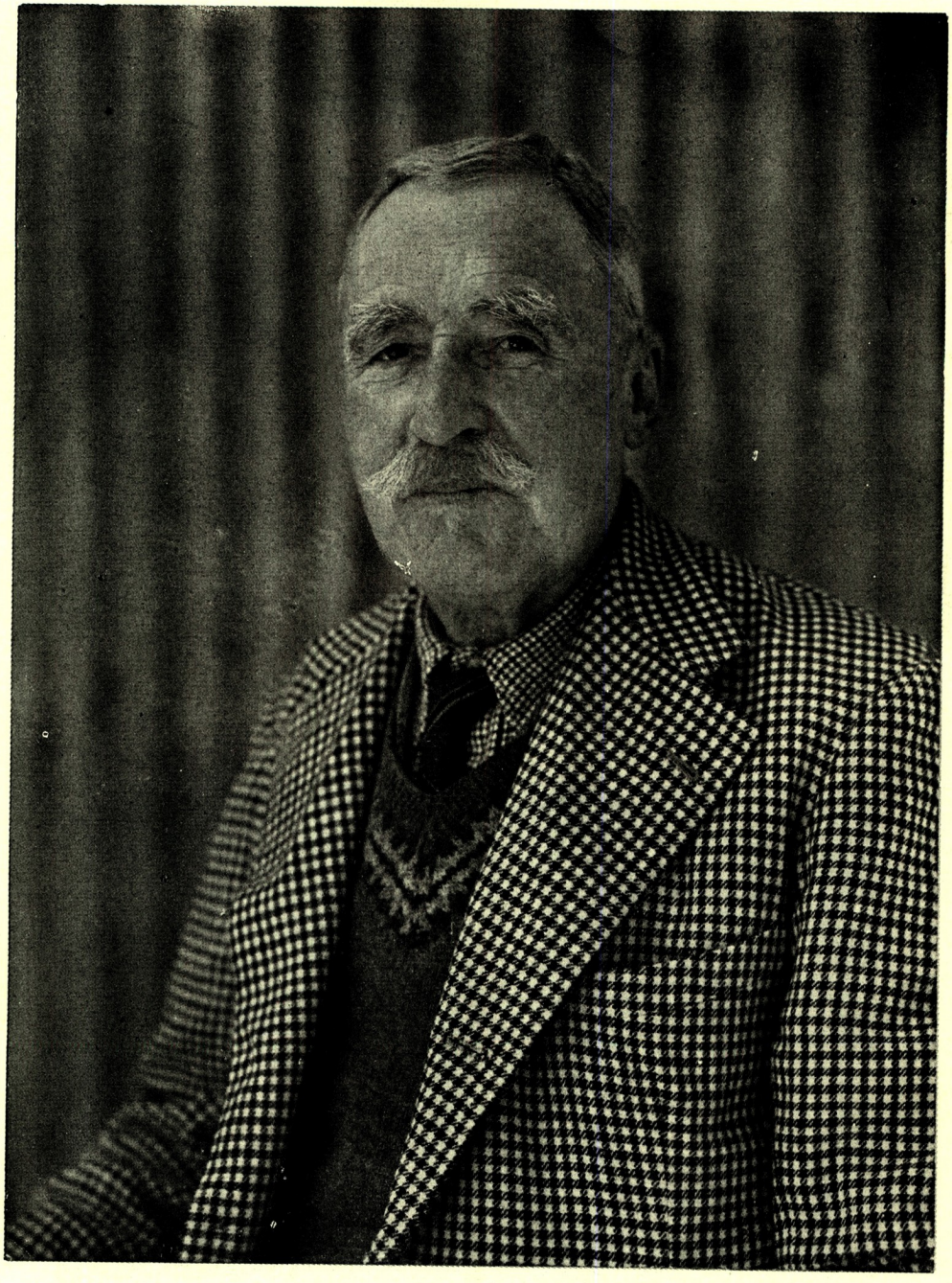
As Honorary Superintendent he helped to administer game laws without fear or favour. When Honorary Game Wardens were appointed for the first time in 1950, he was one of the first to be appointed. He was responsible for the detection of many poaching cases.

He opposed the proposal to call off all shooting in the Madras State for a period of 5 years, as this measure would stop all legitimate sport and open the forests to poachers.

As a Committee Member of Nilgiri Game Association and as Honorary Superintendent of the Association, he helped to modernise Game Laws and Wild Life Preservation methods, and was instrumental in proposing or introducing the following through the Nilgiris Game Association :

1. Rewards for killing vermin.
2. Prohibition of shooting from motor vehicles.
3. Rewards for detection of offences.
4. Honorary Game Wardens.
5. Rule regarding reporting of wounding of dangerous game to prevent the possibility of their becoming a danger to human life.
6. Prohibition of shooting of tiger and panther within 100 yards of any road or cart track (except when sitting over a kill) to prevent their being shot at from cars.
7. Bison-girth at base of horn as an alternative qualification of shootable heads.
8. Prohibition of shooting of four-horned antelope and other rare species.
9. Prohibition of shooting of game animals with slugs.
10. Prohibition of shooting of game animals (except tiger, panther, bear and pig) over water holes and salt licks.
11. Submission of returns of game shot within 48 hours.
12. Prohibition of shooting of game (tigers, panthers, bears, pigs and wild dogs are not included in the definition of "game") after sunset and before sunrise.

He took a census of the Nilgiri tahr in the Nilgiris in 1955. He introduced anti-poaching gates which put a stop to motor-car poaching in the Anaikatti area and was responsible for



Lt. Col. E. G. Phythian-Adams, O.B.E., F.Z.S.

White Tiger of Rewa.

Photo by E. P. Gee.

White Tiger Cubs (4) with normally coloured mother.

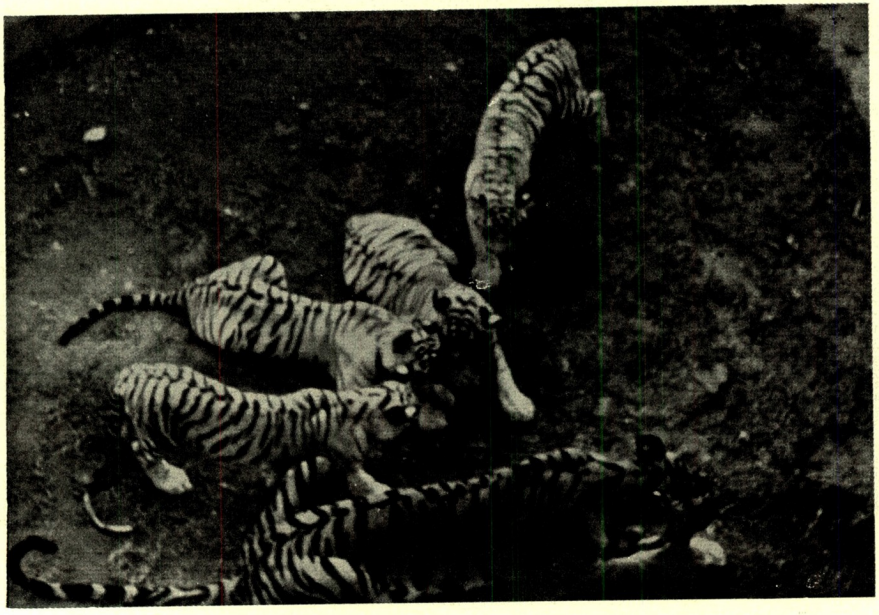


Photo by E. P. Gee.

introducing the system of registration of shikaries. This measure cast a responsibility on shikaries and many offences were detected through them.

He took a keen interest in the Nilgiri Trout Fishery.

Lt. Col. Phythian-Adams was appointed a member of the Madras State Wild Life Board, and was a Fellow of the Royal Zoological Society. He was a keen naturalist and had a large collection of birds eggs and butterflies, which he bequeathed to St. George's Homes, Ketti, as well as a fine collection of trophies, which used to attract many people.

He prepared the "Rules and Notes on Shooting and Fishing in Nilgiris." He also prepared the shikar map of the Nilgiris in 1931 and revised the same in 1937, '46 and '52.

He wrote "Jungle Memories" in serial form in the Bombay Natural History Society Journal and was a regular contributor. He wrote the booklet "Sportsmanship and Etiquette in Shooting" and the "Madras Soldier" 1746-1946.

Very few persons have had the record of service for India's wild life that Lt. Col. Phythian-Adams possessed and his memory in South India and in the Nilgiris at any rate, will linger for a long time.

E.R.C. DAVIDAR.

The White Tigers of Rewa

The ex-princely State of Rewa in Central India, now a part of Madhya Pradesh, is well known for the number of tigers that abound in it and particularly so for the comparatively large number of 'white tigers' that have been shot or captured there.

The late Maharajah of Rewa, Sir Gulab Singh, was well known as an excellent rifle-shot and for the large number of tigers that he had shot—about 600, second only to the Ruler of Surgaja. What is perhaps less known about him is that he was a keen wild life preservationist as a result of which, till quite recently at least, Rewa State abounded in wild life. This noble tradition has been carried on by his son, the present Maharajah of Rewa, who has been associated with the attempt to breed white tigers. Mohan, the White Tiger of Rewa, has sired the 4 white cubs recently publicised in the "Illustrated Weekly" and the "Statesman", and one of which was exhibited in the World Agriculture Fair at Delhi.

During the month of May 1951, when His Highness the Maharajah of Rewa was camping in the Yadwas Reserve Forest of Sidhi District in Madhya Pradesh, he received vague rumours of a white tiger cub having been seen about twenty miles away. As is the practice in that part of the country, buffalo male calves about eighteen months old known as 'parwas', were tied out as 'live-bait' in certain forests known to be the haunts of tigers and covering an area of approximately five to ten miles. One of these live-baits was reported killed by a tigress with cubs in the Bartari forest near Pankhoia village. A beat was organised during which a tigress with three cubs was seen by the shooting party and one of these cubs was 'white'. As soon as this was noticed, it was quickly decided that this 'white' cub, which was then the size of a full grown Alsatian dog, should be captured if possible. For this to be accomplished the tigress and the other two normal coloured cubs had to be sacrificed, so these were accordingly shot while the white cub was allowed to escape through the stops.

After the beat, some of His Highness's experienced shikaries were put on the tracks of the cub. It took two days of hard work before the tiger was located in a cave. The cave was quickly surrounded and nets got ready to ensnare the animal as soon as it should leave the cave, but it would have none of it inspite of all attempts to entice it out. It did not leave the cave that day nor the next, by when the nets had been replaced by a cage constructed of *sal* (Shorea robusta) poles and bamboos. The long delay gave cause for anxiety, as the cub had neither eaten nor drunk water since the beat, 3½ days earlier. It was, therefore, decided to smoke the cub out. This was done, and the cub entered the cage on the 28th May at 7.30 P.M. He soon set about demolishing the bamboo work of the cage, and a larger and stronger cage had, therefore, to be constructed around the first one as fast as possible, before the cub could escape. Work was continued all night by the aid of fires and hurricane and gas lamps. It was ready by the next morning, when the cub was transported by truck to an old palace at Govindgarh, a very picturesque spot on the shores of a small lake, twelve miles south of Rewa. One of the many courtyards with an adjoining room was specially prepared for the tiger cub, which was christened 'Mohan', being a male. Bamboos were planted in the courtyard and a water-trough and tin-shed constructed. During the heat of the day, the tiger is kept in the room and comes into the courtyard, where he can be seen by visitors early in the morning and late in the evening depending on the season.

Within a few months of his capture, Mohan somehow managed to escape and crossed the moat around the palace which, at its narrowest, is about fifty yards wide. He was discovered in a field about three miles away the next day after a frantic search and after a few exciting hours he was eventually re-captured.

A normal coloured tigress was captured on the 27th Feb., 1952 by the shikaries of the Maharajah and mated with Mohan in 1953 to produce a litter of two cubs, both male, on 7-9-1953. (The gestation period of a tiger is about 105 to 112 days and they are said to mature when about 2 years old). Both these cubs being normal coloured were sold to zoos, one of them to find a home in the Victoria Gardens, Bombay.

Sometime after her capture, the tigress also managed to escape from a courtyard adjoining that of Mohan, by climbing a low-branched tree there. She was eventually found in one of the numerous unused rooms in the palace.

A second litter was again sired by Mohan from the same tigress on 10-2-1955. This consisted of two male and two female cubs all of them being normal coloured, much to everyone's disappointment. Only one of the female cubs of this litter was retained, the others being given away or sold.

A third litter of four cubs was also born to Mohan and the tigress on the 10th July, 1956, but as it was also decided that Mohan would be mated with one of the female cubs of the second litter, three of these cubs with their mother were given away, one cub having died a few hours after birth.

When the female cub of the second litter was mature, she was mated with Mohan to produce a litter of four cubs—three females and one male—on the 30th October, 1958. To everyone's joy, all four of the cubs were 'white' and identical to their father (and grand father) Mohan, in colouring. These cubs when last seen by me in July 1959 were quite healthy and a little larger than a full grown Alsatian dog. They were still with their mother but have since been segregated, as she even then had begun to resent their presence.

The results of the experiment at Rewa to-date, appears to indicate that the white-colouring, or the lack of orange-red pigmentation, is hereditary. The reason for this colour change is not known but we are led to conjecture whether the gene for white colour in the tiger is a mutated recessive one to the dominant orange-red colour gene in the normal tiger, or whether it is a throw-back to the white colour of the ancestor of the present day species, the Sabre Toothed 'Tiger' of Machuria! The former appears to be more plausible. The results also appear to indicate a case of complete dominance by the gene for orange-red colour over that for the white, for if this were not the case a colour in between the orange-red of one parent and the white of the other should be exhibited in the progeny of the first generation. This did not prove to be so.

In the case of complete dominance, the progeny of the first generation would all be normal or orange-coloured (which was the case), while the ratio in the second generation,

as a result of crossing Mohan with his own normal coloured daughter, should ideally be 1:1, i.e. 50% of the cubs should be normal coloured and 50% white. This ideal ratio is, however, seldom achieved. It is indeed fortunate that all four cubs of the first litter in the second generation, were white.

If, however, a white female cub is mated with Mohan or with another male white cub of the same litter, all the progeny should be white. This is in accordance with Mendel's Laws of Genetics, a diagrammatic representation of which is given at the end of the article.

I believe that His Highness the Maharajah of Rewa plans to follow this line of breeding when the white cubs mature. The results would be most interesting and are keenly awaited.

Mohan, the white tiger and sire of the white-cubs, has dark chocolate-coloured stripes on a whitish-cream background as against the black strips on an orange-red background of a normal tiger. The shade of white or cream on Mohan varies with whether he has been rolling in sand or has had a bath. His eyes are bluish or 'ice-blue' and not sensitive to light, as would have been the case were he an albino. In all other respects, he is a normal tiger, neither more nor less 'tame' than any other tiger brought up in captivity.

The occurrence of white-tigers has been reported before from time to time in Rewa State and one was even captured by a late ruler of the State, Roghuraj Singh, the present ruler's great-grandfather, in a forest near Annupur railway station on the Bilaspur Katni Branch line of the South-Eastern Railway. This forest was in the then Rewa State and the white tiger, which has been mentioned by Brigadier Burton in one of his books, was kept in captivity at Rewa for sometime before it died. About 1943 a white tiger was shot by Major Woolridge, then Political Adviser in Rewa, on the Kamaun Hills and another was shot in 1946 by the present Maharaja of Rewa on the same range of hills but about 30 miles further east. This tiger has been mounted and is on display in the palace at Rewa. It is of interest that Mohan was captured about 60-70 miles south of where the white tiger was shot in 1946.

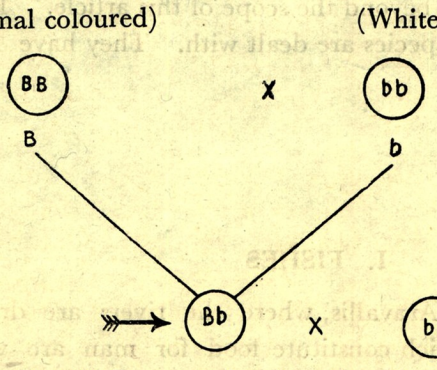
White tigers, however, are not the monopoly of the ex-Rewa State area, though for some reason they appear to have been more numerous there. Corbett has recorded having seen one in U.P. in his book 'Man-eaters of Kumaon', and others have been recorded from Orissa, Bilaspur (M.P.) and Mirzapur (U.P.)

An experiment on similar lines, but with panthers, was attempted by A.N. Weinman, Director Zoological Gardens of Ceylon, as reported in the '*Loris*' (Vol. VIII No. 1). The details are that the male progeny of a male black panther and a female normal coloured one, was mated with a female normal coloured panther, to produce two abnormal cubs. The male, called Tarzan, exhibited a tendency to melanism (black) being several shades darker than an ordinary panther. The female, known as Blondie, was white, with barely visible orange spots in place of the black. As Blondie grew older, the white changed into cream

and the orange spots grew correspondingly darker. The eyes were blue, not pink as in albinos and were not sensitive to light. Attempts were made to mate these two abnormal cubs with no success, until with harmonal treatment (testosterone) they bore a pair of cubs. Both these were males, one being darker than the ordinary leopard and the other white like Blondie. The author of the article intends carrying on the experiment by mating Blondie with an ordinary panther. It would be interesting to know the results. This, however, appears to be a case of incomplete dominance. It is to be noted that melanism (excessive black pigmentation) is a disease, unlike the white colour in the white tiger.

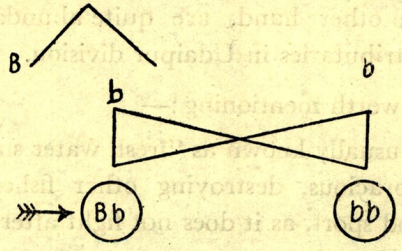
Diagrammatic representation of the experiment in breeding a white race of tigers at Rewa.

Let 'B' be the gene representing the normal orange-red colour of an ordinary tiger, and 'b' be the gene representing the white (mutated) colour of the tiger.
B is dominant over b.



F_1 (first) generation — back-crossed with the white parent

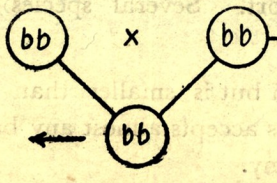
N. B.—Bb will be normal coloured as B is dominant over b.



F_2 (second) generation

Normal colored White coloured.

Result = 1 : 2 ratio



back crossed with parent of F_1 generation or crossed with a white cub of F_2 generation.

All individuals will be white.

A. Oswald.

Shikar in Rajasthan*

The main topography of Rajasthan is dominated by the Aravalli range, which divides it in two main parts, 3/5ths on the west and 2/5ths to the east. The area lying to the west of the Aravallis is arid and semi-arid while that to the east falls in the sub-humid category.

India as a whole falls in the zoo-geographical division of the earth known as 'Oriental Region', but the plants and animals of Western Rajasthan resemble more those found in the Palaearctic region, such as are spread over the deserts of the middle east and the U.S.S.R. Thus the animals to the west of the Aravallis which are adapted for arid condition, are different than those found in the area lying east of the Aravallis. At certain places, however, curious mixtures of animals belonging to both the regions is found.

These discussions are, however, beyond the scope of this article. Here only the Vertebrate which are important as game species are dealt with. They have been divided into the following categories :—

(i) Fishes.
(ii) Feathered Game.
(iii) Small and big Game.

I. FISHES

In the dry country, west of the Aravallis, where the rivers are dry except during the season of the monsoon, the fishes which constitute food for man are very few in number. However, the Luni river in Marwar and the Banas in Sirohi exhibit some good game fish in the monsoon. Fishes, on the other hand, are quite abundant in Banas in Jaipur division, Chambal in Kotah and other tributaries in Udaipur division.

The following species are worth mentioning :—

Lanchi (*Bagarius*). It is usually known as "fresh water shark" and is a scaleless fish of silvery grey hue. It is very voracious, destroying other fishes, and will take any bait or spoon, but it does not give good sport, as it does not fight after it has had the first run of the line.

Sawal (*Ophiocephalus*). The Sawal runs to large sizes and is very much valued for the table. It takes any bait and provides good sport. Several species of Ophiocephalus are found, viz. *striatus*, *marius*, *punctatus* etc.

Singhi (*Pseudeutropius*). It is a scaleless fish but is smaller than Lanchi and grows to about six to eight inches in length. This species accepts almost any bait and is easily landed. People regard it to be good though it is very bony.

Giri (*Barilius*). Is a dark brown-backed fish and grows to 10 inches. It takes bait easily and gives good sport. It is full of small bones; the people, however, appreciate it.

Mahseer (*Barbus*) This fish is quite abundant in Chambal and in East Banas. It runs to large size and gives exciting sport. It is very much liked as food. Several species of Barbus are found, viz. *stigma*, *stocizkans*, *chrysopoma* etc.

Rohu (*Labeo rohita*). It is probably the largest fish found in this region. Fish weighing 25 lbs. have been seen. This fish is, however, difficult to hook as it sucks at the bait for ten or fifteen minutes, requiring much practice to know when to strike which must be done with great smartness and vigour. The usual bait for this fish is worm. It plays well, giving excellent sport and is generally well flavoured and fit for the table.

Chilwa (*Aspidoparia*), **Natara** (*Mugil*) are small fishes and swim in batches. The former are silvery in colour and give good sport. The latter are not longer than 10 inches but are very tasty and are sometimes shot, which can be easily done on account of their swimming so close to the surface of the water.

Singhara (*Macronis*). This fish runs to large size and is common in lakes near Alwar and Bharatpur. It is very much relished by people since it is not very bony.

II FEATHERED GAME

Most of the birds which interest a shikari are winter-visitors. By 'winter-visitor' is meant that they visit these areas in winter on their winter migrations. Following is the list of a few birds which are edible and are shot as game.

Ducks The lake at Bharatpur is the richest for the winter visitants and many varieties of ducks visit this place in November-December. They are found here upto the middle of January, sometimes later also. **Shoveller** (*Spatula clypeata*), **Gargeney** (*Querquedela querquedela*), **Common teal** (*Nettapus coromandelianus*) and **Pochard** (*Nyroca ferina*) are the common winter visitants.

Jungle Fowl are usually met with in the Aravalli hills. **Grey Jungle Fowl** *(Gallus sonnerati)* are numerous in the low hills at Abu. It is, however, difficult to shoot them since they are very alert.

Red Spur Fowl (*Galloperdix spadicea*) are less shy than the former and are found in the hills of Sirohi and Marwar. Sometimes the **Pea fowl** *(Pavo cristatus)* is also killed and eaten. In the Princely States they were, however, given protection.

Partridges. Three species of partridges are found in Rajasthan. One of them the **Black Partridge** *(Francolinus francolinus)* is supposed to be an introduced bird and was replenished from

time to time to augment the game stock. The **Grey Partridge** (*Perdix pondiceirianus*) is the common species and is abundantly found over entire Rajasthan. The **Painted Partridge** (*Francolinus pictus*) is met with near streams and grass lands. All the varieties of partridges are regarded as good eating.

Quails. A good many species of this bird are found in Rajasthan. The **Grey Quail** (*Coturnix coturnix*) visits this region in winter and affect standing crops of *Bajri* and *Jowar*. The **Rain Quail** (*Coturnix coromondelica*), though a resident bird, yet moves about a great deal locally with the seasons. The **Jungle Bush Quail** (*Perdicula asiatica*) and the **Rock Bush Quail** (*Perdicula argoondah*) are more common in the cultivated parts of Rajasthan and are abundant east of the Aravallis. The latter is found in the stonier and drier parts.

Bustard. The **Great Indian Bustard** (*Chriotis nigriceps*) is regarded as a vanishing species of bird. It is, however, still found in the desert regions generally in pairs. Its flesh is regarded to be of great delicacy. The **Indian Bustard** or **Houbara** (*Chalmydotis undulata*) is a winter visitor in the desert region. It is also much prized on account of the delicate flavour of its flesh.

Sandgrouse. All the varieties of sandgrouse afford excellent sport and good eating for the table. The **Imperial Sandgrouse** (*Pterocles orientalis*) is found in the semi arid tracts between November and March in enormous flocks. In the morning thousands of them can be witnessed flying towards water and in the afternoon towards the feeding grounds. The **Painted Sandgrouse** (*Pterocles indicus*) and **Common Sandgrouse** (*Pterocles exustus*) also flock in large numbers and are found in winter.

Snipe. They visit our region between October and February. They are usually found near tanks and lakes. **Pintail Snipe** (*Capella stenura*), **Fantail Snipe** (*Capella gallingo*), **Jack Snipe** (*Postragula benghalensis*) are all winter *visitors* and provide exciting sport.

III. Small and Big Game

Lion (*Panthera leo*) has now become extinct in Rajasthan. W.T. Blanford writes that they were once well distributed in Udaipur division and in the Aravalli hills at Abu and Marwar. In 1872 a Bhil shikari shot a full grown lioness on the Anadra side of Mt. Abu. In the same year Colonel Hayland bagged four of this species near Jaswantpura (Jodhpur division).

Tiger (*Panthera tigris*). This large cat has also suffered a great reduction in its numbers owing to indiscriminate shooting and is now restricted to certain regions in the Aravalli ranges, Bharatpur, Alwar, Dholpur, Sawai Madhopur and Kotah. Tiger shooting is too well known to require further description here.

Panther (*Panthera pardus*). They are still found in the hilly tracts all over Rajasthan, and are plentiful in forested areas. Panthers exercise much greater cunning than the tiger in evading the sportsman.

Sloth Bear (*Melursus ursinus*). It is found in the Aravalli ranges and in the forested regions of Dholpur, Sawai Madhopur and Bundi. They afford good sport.

Wild Boar *(Sus scrofa cristatus)*. This was at the head of the game animals of Rajasthan for pigsticking, Jodhpur being famous for this sport. They were well distributed in Marwar but of late they have been indiscriminately killed and are now found only in cultivated areas south to Pali. They are almost absent from the Bikaner division. They are, however, still found in fair numbers at Bharatpur, Alwar, Dholpur, and in the south of Jaipur division.

Black Buck *(Antilope cervicapra rajputanae)*. It affords good sport to the rifle but is shy and difficult of approach. It requires stalking and cannot be obtained without labour. The flesh of this antelope is highly prized. It is found in small numbers in western Rajasthan but is common in Bharatpur, Alwar, Dholpur and south-eastern Rajasthan.

Chinkara (*Gazella gazella bennetti*). This graceful little animal is widely distributed in almost every district of Rajasthan but is now abundant only in the Bikaner Division. The gazelle is much more easily approached than the black-buck. The flesh is also supposed to be better than that of the former.

Chital (*Axis axis*), **Sambhar** (*Cervus unicolor)* and **Nilgai** (*Boselaphus tragocamelus*). These are animals of forest areas and are found in south eastern Rajasthan along the river Chambal. Sometimes good heads are observed at Dholpur. The sambhar is found in southern Jodhpur also. The flesh of this is considered good by the people, the marrow bones are excellent, and the head and the skin is much prized. The nilgai is not very attractive to the sportsman and people look upon it as a sort of cow and resent its being shot. The chital gives good sport and is much valued for its skin and head.

Hares are well distributed in Rajasthan. Two varieties are found, the **Sind Hare** *(Lepus nigricollis dayanus)* which is restricted to semi-arid regions and the **Common Indian Hare** (*Lepus nigricollis ruficaudatus)*, which is found in the rest of Rajasthan. In summer, particularly, they are much liked by the people. Sometimes hare's blood is used for medicinal purposes, especially for children's diseases.

Crocodile (*Crocodilus indicus*) are met with in large tanks and rivers. At certain places they are a menace. They offer sport to some shikaris.

In Rajasthan good shikar is available at Ghana in Bharatpur, Siriska valley in Alwar, Satkarai in Dholpur, Khandhar in Sawai-Madhopur, Dara in Kotah, Sardar Samand in Jodhpur and Gajner in Bikaner. In some of these there are sanctuaries.

ISHWAR PRAKASH,
Department of Zoology, Maharaja's College, Jaipur.

* Result of an enquiry, replied to by Tehsildars of the various districts of Rajasthan, under a U.N.E.S.C.O. Project supervised by Dr. Daya Krishna, Professor of Zoology, Jaswant College, Jodhpur.

Our Lesser known Species

The Tibetan Antelope (Pantholops hodgsoni)

It is known as 'Rtsos' in Tibetan and is the most cherished trophy of the sportsman, and the most expensive shawl in the world is made from the under-wool or the silky down of this antelope.

A Frecheman, Larousse, says "This fine silky web of wool worked with fanciful flowers, distinguished by the tints of its colour, its singular design.....fashion adapted it, protected it, and soon became the indespensible item of elegant wardrobe with all those who could afford to purchase and thus aspire to be considered well dressed. Woe to the husbands whose limited income would not admit of shawl ! Double woe to those ladies whose husbands were too poor or too stingy to afford their wives the gratification of their wishes !"

The Tibetan antelope is not a big animal but one of the handsomest animals, a full grown male stands 30 to 33 inches at the shoulders, weight about 1½ maunds (120 lbs.) the general colour of hair is fawn, but the abdomen changing to white and the dorsal ridge to dark brown, the face and the limbs of the male are black, the hair is short and thick, the interstices thickly packed with extremely soft silky down of dark cigar-brown colour to protect the animal from extremely cold temperature, less than minus 45 Farenheit. The down is thickest in the first quarter including the neck. The limbs are long and slender and beautiful, as the limbs and piano fingers of a lady of rank. The tail is short and hairy. There are two pouches 9" x 4" on each side of the thigh which contain no glands, the purpose of which is not known to me. The horns are black, slender, compressed from side to side, with ridges and furrows, the age of an animal is ascertained from the annual growth mark on the horns. The male horn so far recorded

by sportsmen is 27¾ inches in length and 6⅛ inches in girth at the base, but bigger than the recorded ones are also found. It changes to summer coat in early summer (May) and continues to shed till the end of July. In summer it is pestered by a fly, which buries deep down into the skin and lays eggs: when the eggs hatch the pupa's wriggling makes them mad with discomfort and pain, the animals run at terrific speed and roll over and over again in the sand to scratch their bodies, thus shedding some of wintercoat of hair and down in sand. What a sight to see these fleet-footed animals galloping and bouncing like a rubber or golf ball, with their extra wide and puffed nostrils distended. If the animal is killed in summer the skin is punctured by this fly as if shot with a shot-gun at close quarters, and is useless to anyone. The head, eyes, ears are beautiful like of any other antelope, but the nostrils are exceptionally wide and swollen at sides. It might be for the intake of more oxygen from the rarified air, as it is found in the Chanchhenmo valley, the average height of which ranges between 15,000 to 20,000 ft. The female is lighter in colour and is slightly smaller than the male, horns are shorter, slightly compressed from side to side. Their rutting season is in the months of November-December, one or two kids are born in the month of June and they begin to walk a few hours after the birth as soon as they are licked dry by their mother. They live in small herds of 4 to 15.

In the Jammu and Kashmir State the Tibetan antelope is found in the Chanchhenmo valley and the tributaries of Shayak river and Linzhithan plains.

The number of animals in the Chanchhenmo and Chinese Tibetan Chanchhenmo and Chanthan is much depleted due to the merciless murder of these poor animals for the sake of half a pound of silky down, the Shahi-Tosa as it is called in Kashmiri. It is sold at the rate of Rs. 300/- to Rs. 400/- per seer (80 tolas). The number of animals killed can be easily estimated from the import figures in Srinagar. Woe to the capitalists and capitalist wearers, the day is not far when the Tibetan antelope will be on the list of extinct animals !

In the summer of 1959 I was simply aghast to see the heads and skins of these animals strewn in the valley of Chanchhenmo.

In the Tibetan, e.g. Western or Central Tibet, no part of the animal is wasted, the flesh is eaten roasted, boiled or dried. As it contains no fat, it is good to eat. The skin is turned into chamois leather and used in making breeches, gowns, bags, ropes for lasso, long boots, laces etc, the hair is used in upholstery, the down is sold to merchants, the horn is used as dibbling peg in sowing of awnless giant barley, *Hordeum Aegiceras*, at Korzog and Laganskyal etc. (14,800 ft. above sea-level), tent-pegs, whip-handles, knife handles etc. The fore-foot along with the hoof unskinned, are used for the handles of whips and is comfortable during winter. The tarsus is used for snares in catching their own kind (antelopes).

S. S. Gergan.

Improvement in our Sanctuaries.

THE KANSRAO SANCTUARY

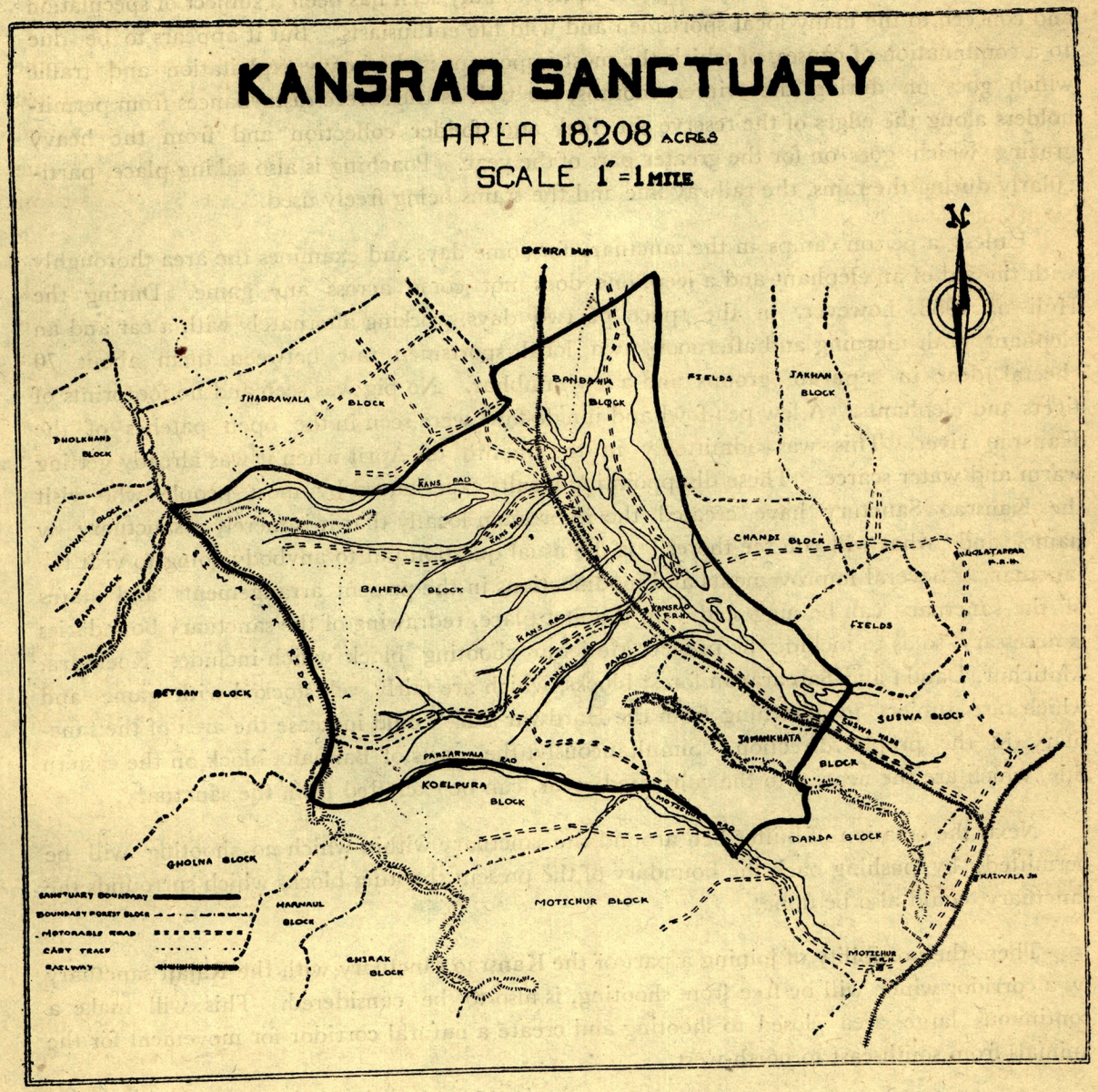
The Kansrao Sanctuary is a small area of 18,200 acres (29 sq. miles) in the heart of the Dehra Dun forest. It is composed of several compartments distributed over half a dozen blocks. The compartments are allotted to various Working Circles, such as Conversion, Selection, Miscellaneous, Plantations, Grazing etc. and the compartments receive the same type of treatment in the Sanctuary as they would receive outside. The area under Selection Working Circle is only 6300 acres.

The Sanctuary is surrounded by shooting blocks and, in fact, is an old shooting block converted into a sanctuary. It is bounded on the western side by a steep ridge, forming the outer and southern line of the Siwaliks. On the eastern side, it is bounded by fields. On the south is the famous Motichur shooting block and on the north the Jhabrawala block. The main forest road from Dehra Dun to Motichur and Jhabrawala passes through the Sanctuary. Starting at Lachiwala, this road runs more or less parallel to the eastern edge of the reserve forest and the railway line from Raiwala to Dehra Dun to the Kansrao forest rest house, which is the only forest rest house in the Sanctuary. The road here bifurcates, east to the Golatappar rest house and west and then again south to Motichur forest rest house, which is situated on the main Hardwar-Rishikesh road.

The sanctuary consists of both plain area and ridges of the Siwaliks and the forests are typical of the Dun valley, being mainly sal and some riveraine forests along the nullahs and evergreen forests in some low lying areas to the east. The main river that drains the sanctuary is the Kansrao while the Suswa forms the eastern boundary of the sanctuary for some distance.

The animals normally found in the sanctuary are those typical of the Dun forests, i.e. cheetal, sambar, pig, barking-deer, tiger, leopard, pea-fowl, jungle-fowl and in places, partridges. Elephants visit the Sanctuary during the winter months crossing over the Ganges river between Hardwar and Rishikesh and penetrating the Dun forests, keeping close to the Siwaliks, which with its ridges and deep and secluded ravines, forms an ideal hiding-place.

Situated as it is some 20 miles from Dehra Dun on the forest highway to Hardwar, the Kansrao sanctuary has always attracted people. But it is generally their experience not to see many animals when driving through the sanctuary, either by day or night in the winter months. During these months, the main road is busy both with forest extraction, lorry traffic as well as private cars, while the eastern edges of the area are overrun with cattle. During the


KANSRAO SANCTUARY
AREA 18,208 ACRES
SCALE 1"=1 MILE
N
DEHRA DUN
BANDAWA BLOCK
FIELDS
JAKHAN BLOCK
THADRAWALA BLOCK
PHOLKHAND BLOCK
KANS RAO
MALOWALA BLOCK
BAM BLOCK
SIWALIK RIDGE
CHANDI BLOCK
BAHERA BLOCK
KANSRAO P.R.H.
FIELDS
BETBAN BLOCK
SUSWA BLOCK
JAMMKHATA BLOCK
PANJARWALA RAO
KOELPURA BLOCK
DANDA BLOCK
GHOLNA BLOCK
MOTICHUR BLOCK
HARNAUL BLOCK
GHIRAK BLOCK
MOTICHUR P.R.H.
SANCTUARY BOUNDARY
BOUNDARY FOREST BLOCK
MOTORABLE ROAD
CART TRACK
RAILWAY

rains, the area is not accessible by car but the railway line running along the eastern edge of the sanctuary with the Kansrao railway station in the centre of it, makes it accessible to a certain extent. The reason why game is not usually seen has been a subject of speculation and concern to the many local sportsmen and wild life enthusiasts. But it appears to be due to a combination of causes, of which the most important is the heavy exploitation and traffic which goes on during the winter months, as well as the severe disturbances from permit-holders along the edges of the reserve for fuel and fodder collection and from the heavy grazing which goes on for the greater part of the year. Poaching is also taking place, particularly during the rains, the railway line and the trains being freely used.

Unless a person camps in the sanctuary for some days and examines the area thoroughly with the aid of an elephant and a jeep, one does not come across any game. During the Holi of 1958, however, in the space of two days, working alternately with a car and an elephant, both morning and afternoon, two local sportsmen saw between them about 70 cheetal deer in separate groups and a few sambhar. No pig was seen and no footprints of tigers and elephants. A few pea-fowl and jungle-fowl were seen in the open patches of the Kansrao river. This was admittedly in the month of April when it was already getting warm and water scarce. These disappointing results experienced by most people who visit the Kansrao Sanctury have created the impression locally that it is merely a sanctuary by name, and "what will you see there?" is the usual question put to anybody going to visit the sanctuary. Several improvements and modifications in the present arrangements and status of the sanctuary can be suggested. In the first place, redrawing of the sanctuary boundaries is necessary, so as to include the present Motichur shooting block which includes Koelpura, Motichur, Danda and Satnarayan forest blocks, which are fairly well stocked with game and which are subject to poaching from the Hardwar side, would increase the area of the sanctuary in the proper direction. Simultaneously, the parts of Banbaha block on the eastern side, which are the nearest to the cultivated areas, can be excluded from the sanctuary.

Next, the creation of buffer belt around the sanctuary within which no shooting will be permitted, by pushing back the boundary of the present shooting blocks which surrounds the sanctuary, could also be done.

Then, the possibility of joining a part of the Kansrao sanctuary with the Rajaji sanctuary by a corridor which will be free from shooting, is also to be considered. This will make a continuous large area closed to shooting and create a natural corridor for movement for the animals from south-east to north-west.

The early burning of certain areas to create conditions for attracting game and the sowing of rice or bajra in other suitable areas to serve as food-crops for deer and so as to retain

them within the sanctuary, is another possibility. In these places, machans for veiwing the game could be erected.

The closure of the road passing through the sanctuary to through traffic to Hardwar and the use of it only by motorists which have specific business in the sanctuary, is another important suggestion. In this connection, it is the usual custom for persons who take the Motichur block to drive though the sanctuary with their guns. Even timber-trucks have been seen with guns mounted on them. This should not be allowed, or at any rate guns should be locked away and not kept in the open car or truck, ready for use when being taken through the sanctuary.

The use of the Kansrao forest bungalow should be confined to those who are visiting the sanctuary and to persons on official duty only. The bungalow should be renovated and improved for the use of tourists and an elephant should be posted at the sanctuary permanently, for the use of visitors as well as inspecting officers and game staff.

To compensate for the closure of the forest road, hitherto used freely, the old Local Board road which runs past the bungalow, parallel to the railway line to Motichur, should be reopened and made passable for all traffic which has no specific business in the sanctuary.

Coming to the most important point of all, i.e. the forest exploitation, it should be possible to substitute for the, at present, intensive forest working, light selection fellings on a long felling cycle with high girth limits. Some amount of sacrifice has got to be accepted in regard to forest sanctuaries and national parks in India and it is time for the forest department to accept this principle and act up to it in the above manner.

If these measures are implemented in the Kansrao Sanctuary, it should be possible to make it more attractive to the visitors and, what is more important, more full of wild life than it is at present.

"Forester."

Tiger Feeding in the Old Dholpur Sanctuary.

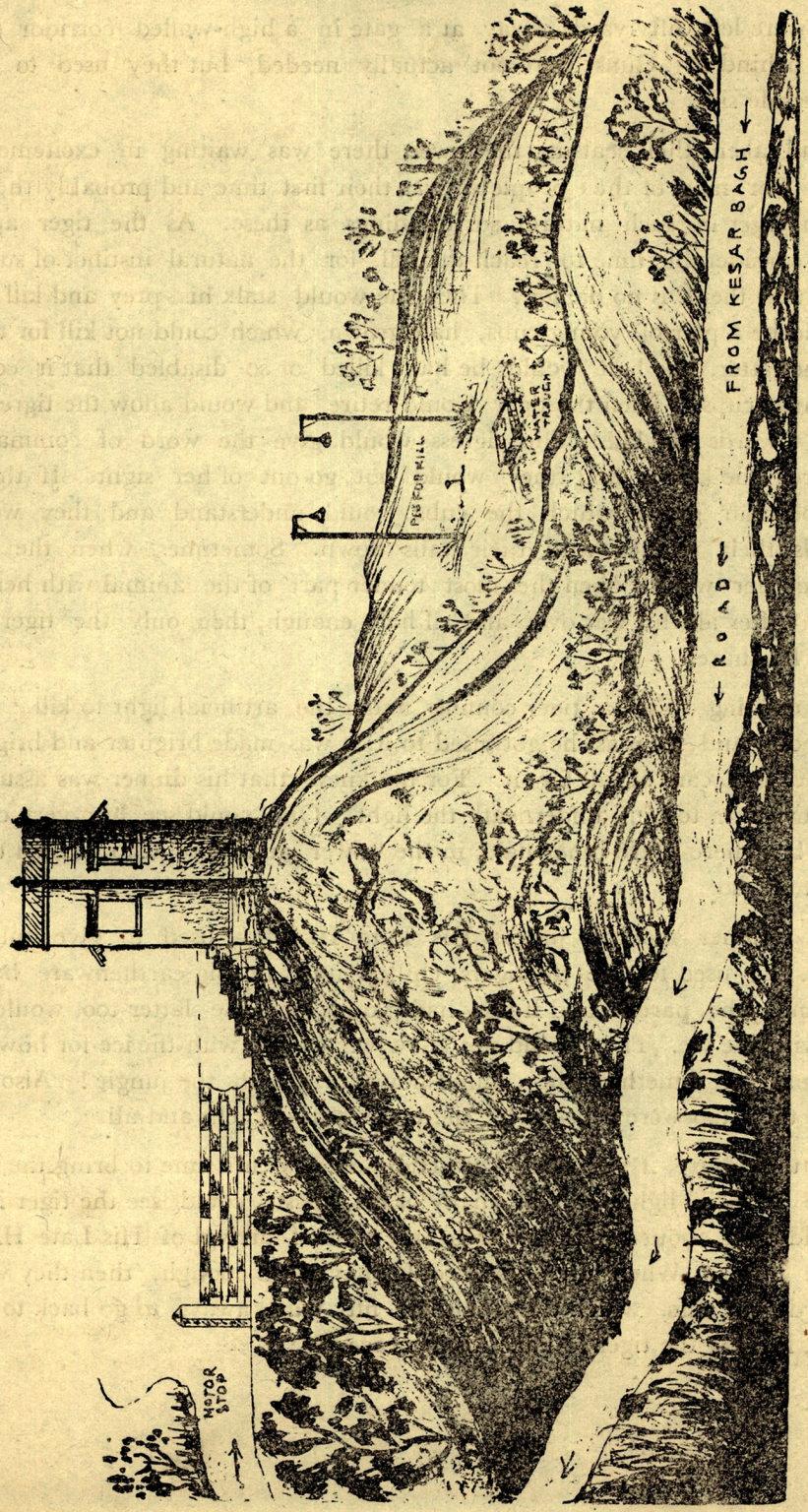
In the April 1959 issue of the "Cheetal", I have given you a living description of how I knew the old Dholpur Sanctuary in the time of his Late Highness, the Maharaja Rana of Dholpur, my father-in-law of revered memory. In that I had described feeding of all the animals except the carnivora class—tiger, panther, bear and crocodile, etc.

Now I shall endeavour to give you a description of how we knew the tiger-feeding in Dholpur. Near Kesar Bagh palace is a hill known as "Kala Pahar". On the slope of this hill, His Highness had built a stone, octagonal tower 20 ft. high. This was about four furlongs from the palace. To get into the tower from the flat top of the hill, you have to use five steps and it has only one floor. It has four observation windows towards the hill slope and where the kill was tied to thick wooden pegs. One sat on noiseless cane-chairs and if any of the party coughed or sneezed that was not the thing to be done, for it spoilt all the fun for the others. One always found that when you were not supposed to do anything like this, it somehow invariably happened at the wrongt ime! So if you wanted to cough or to blow your nose, this was supposed to be done before one reached the tower or while in the car.

As the feeding used to be done from sun-set onwards, so we had to have light. They had 1,000 candle power lamps, with white painted reflectors, attached to the poles to light up the area. The lamps had regulators, so that one could dim and brighten the light as one wanted for the occasion. At first, they had to be dimmed so that the tiger would get used to the light: afterwards when he got used to it, the light could be regulated as one wanted.

You will like to know how the tiger feeding started. After the tower had been built and all the necessary things put into it, such as electric light switches, noiseless cane chairs etc. and the approach road to the tower built, a goat was tied to see if a panther would come to the kill. This he did and it went on for sometime like this, when suddenly one evening one saw that instead of the panther coming to the kill, it was no one else but the King of the Jungle himself! Now the panther got to know that the tiger used to come to the kill at this place and from that very day he was never seen at this spot at this time, although I have seen many a panther a few yards away in the day and at night. After that date, the kill was changed from a goat to a young buffalo calf and the tiger-feeding began.

A little before sun-set His Late Highness used to go by car, accompanied by his guests and staff by a circuitous hill route and go up to the tower from over the flat top of the



Tiger feeding in Dholpur.

hill. The cars were left fifty yards away at a gate in a high-walled corridor leading to the tower from behind it. Guns were not actually needed, but they used to be in the cars to be on the safe side.

After all had taken their seats in the tower there was waiting in excitement for the tiger to appear. For most of the people it was their first time and probably the last, that they would see a tiger in such natural surroundings as these. As the tiger approached, he would take a considerable time to reach the kill, for the natural instinct of such animals is to make sure that there is no danger. Then he would stalk his prey and kill it. Sometimes there would be a pair of young cubs, half grown, which could not kill for themselves. In the case of the latter, the bait would be half killed or so disabled that it could do no harm to the young cubs. Then the tiger would retire and would allow the tigress and the cubs to proceed towards the kill. The tigress would give the word of command to the cubs to go towards the kill so that they would not go out of her sight. If they did, she would give a peculiar growl which the cubs would understand and they would come running towards their mother with their tails down. Sometimes, when the cubs were too small, the mother would open the most tender part of the animal with her claws for the cubs to eat. After all this was over and all had enough, then only the tiger would be allowed to have his share.

It was very exciting to see a tiger coming under the artificial light to kill. At first the light was kept dim and then as he got used to it, it was made brighter and brighter, until eventually he did not care at all for it. For he knew that his dinner was assured and no one would do any harm to him underneath the light. One could see him very clearly with the naked eye, but there were binoculars in the tower and those who wanted to use them were at liberty to do so.

During the summer months, just as His Late Highness used to give chilled milk to jackals and foxes, he used to give the tigers chilled milk, in big earthenware bowls with a lot of ice in them. The parents and if they had young ones the latter too, would drink the milk and play with the ice. They would not know what to do with the ice for how could they know what to make of something they found nowhere else in the jungle ! Also, eggs used to be given and these too were relished by the tigers, eating shells and all.

To achieve the above, it took His Late Highness a year's time to bring the tiger to the tower under the artificial light, so that many of his guests could see the tiger in this way. The whole would take about two hours from the time of arrival of His Late Highness and his guests in the tower. When the guests would have seen enough, then they would wend their way towards the cars, which they had left fifty yards away, to go back to the palace for their dinner, leaving the tiger to have his in peace.

The jungle around Kesar Bagh palace, to my mind, should also be included in the sanctuary, for there are no animals left in this part of the jungle at all. To perpetuate the name of my father-in-law, His Late Highness Maharaj Rana Sir Udaibhan Singh, Lokindra Bahadur, Maharana of Dholpur, I strongly suggest that this should be done. It would be in keeping with what he started, for it was his wish that nothing around Kesar Bagh palace should be shot. If we name this part of the sanctuary after him, I am sure he would be very happy to know that we have abided by his wish.

Moreover, tiger-feeding should be revised to attract tigers to the place. Tourists, both Indian and foreign, would probably like to photograph the tiger-feeding on the kill. This would indirectly mean the preservation of the tiger and of other wild life in the Sanctuary.

Pratap Singh,
Maharaja of Nabha.

Young People's Corner.

I. Ducks and the Gun.

The vast paddy fields in the plains of the Brahmaputra valley become full of water in the summer season. But the huge mass of water does not stay for a long time. When it rains heavily on the Himalayan mountains as well as on the Assam ranges, the water flows down with a terrific speed and floods the plains. The vast stretches of silvery water enhances the beauty of the mountains in the background. At this time the green leaves of paddy come up through the water—nice food for the ducks. This is one of the seasons for duck-shooting. Most of the waterbirds of the order Anseriformes appear at this time, though geese and Brahminy duck do not come in this season.

We used to go for shooting on boats made from a *sal* log. My gun, a 12-bore Birmingham model, was very good. This double barrel gun was supported by .22 bore B.S.A. rifle. My friend also had an Italian gun, which was quite good.

One fine morning we started for shooting at about 4 A.M. We had with us two boatsmen. They were quite expert in boating as well as swimming. Just after proceeding

for about half a mile, we saw a fisherman's boat which was surrounded by hundreds of different birds. They were all waiting for fish. They caught the fish as they jumped about in the net. Some of them can stay stationary in the air, just like a helicopter and can dive very well.

Slowly we passed the fishing boat and the boatsman in front gave us an indication of the ducks about three furlongs ahead. We all sat in the boat, hiding ourselves. We stopped talking and there was pin-drop silence. Slowly we moved the boat towards the flock. It was coming nearer and nearer but still it was out of range of the Alphamax cartridges. Suddenly my friend told the boatsman to stop the boat and asked me to shoot. Slowly and cautiously I lay myself down and took good aim. But somehow the birds got the indication of our arrival and started flying away. As they took off from the water I worked fast. I pulled the trigger and four of them fell to the water again. We caught two, but the other two went below the water and never came up. After having fired once there was no chance of another shot. So we returned back that day but continued our shooting programmes throughout the season successfully.

In autumn, the season just at the time of harvesting summer paddy, the geese start coming to the plains, in large flocks. It is said that during summer they live around Mansarovar lake in the Himalayas. Before their arrival we get some indications. Just after the 'Pujas', something like white threads are seen moving in the air. These are filaments of lans petioles. The geese eat the petioles or break them, when some white, thin threads come out and as these are very light, they are easily blown away by wind to very great distances.

After getting this indication we start preparing for shooting. We always keep our ears open for the sounds of the geese in the sky. When they come, they will always make noise like 'koan-kaon-kaon'. One day a flock came with a terrific noise when I was sitting on our lawn after dinner, chatting with my friend. We were very pleased to hear the voice of the geese, and we knew that they will land in the paddy fields. They always eat paddy grains near the water. We also knew the spots where they generally land. They fly away early in the morning before the reapers arrive in the fields.

So we planned to go for shooting next morning at least one hour before the reapers. According to the programme we started early in the morning, after a cup of tea. We crossed our village and arrived at the vast paddy fields with pods of motionless water.

We proceeded through the paddy fields to the landing ground of the flocks. Though it was far away, still I did not feel the strain of walking. After having covered the distance we saw one of the spots, but there was nothing except a few small birds on the edge of the

water. After a few seconds we heard some sound from another spot. We walked slowly in that direction and the sound became more and more distinct. The sound was not continuous. On our path there was not tall grass or any other hiding place except the paddy, which was completely flat on the ground at that time, perhaps due to the heavy load of the grain. It was not possible to walk because the very sight of our party would put them to flight. So I tried to crawl, leaving my friend behind. I used a golden yellow cap on my head to match the colour of the paddy.

Though I could not get within range, I could see the long necks and beautiful backs above the water. Some of them were busy taking water and food. The peculiarity of these flocks was that they always kept some guards on all sides to see their enemies. The guards give the indication to their friends when they see something. While I was crawling and when I was still out of range, they saw me and started their 'kaon-kaon-kaon...'. And all of a sudden they flew away. They went up to the sky and slowly vanished from my vision. I could not succeed that day because the guards of that flock were more clever than me.

This kind of shooting is very interesting and sometime one must know the tricks of shooting. You must be smart, steady and intelligent enough to deceive these birds or they will deceive you.

H. K. Choudhury.

[Ed: And you must learn to shoot on the wing!].

* * * *

My Children and Wild Life.

When I come to think about it now, it is most surprising how a very insignificant incident could have, on the minds of children, an effect which might be an indication of how to solve the crying need of the day—*the preservation of our wild life.*

This was an incident which occurred in my own family. Our compound in Shillong has a lot of trees, mainly fruit trees and naturally a number of birds used to come to the garden. Particularly during the season of the scarlet minivets, it is a glorious sight to see them flying from tree to tree in the bright sunshine of a cloudless sky. My wife and myself used to look forward every year to the arrival of these birds.

When my eldest boy was 12 years old and my second son was 10 years old, they began to use catapults. This was but natural, because it was the age when boys enjoy shooting and killing anything which comes their way.

One evening when I returned from my office both of them were eagerly waiting for me. They were very excited and happy to show me a beautiful scarlet minivet, which my second son had killed with his catapult.

It was really difficult to express my feelings then. I was horrified to find that my sons had now started to kill those birds which came to the garden every year. At the same time, seeing my children so happy to have killed this beautiful bird, I could not make up my mind to scold them. I experienced what people called "mixed feelings". However, I asked them to preserve the bird properly, as it was so nice.

Next evening after dinner, I asked my sons to bring the bird to me and one of them brought it. The dead bird was so different to look at! The beautiful, smooth and bright coloured feathers had disappeared and what we saw was a stiff, dead thing with crumpled feathers. I asked them if the bird was as beautiful as it was on the previous day and all of them shook their heads. One of them said that he thought the bird would remain beautiful always, even after it was dead!

Then I told them that those lovely birds which used to come to our garden every year would never come again because they had killed one of them and frightened the others. They all looked very sad and promised that they would not shoot them again if they ever came back. However, we are still fortunate that even now those beautiful scarlet minivets still come to our garden, where they are very well looked after by our children.

This incident, though however insignificant it might appear to be, has had a lasting impression on my children. I have marked since then that whatever birds they shoot and kill are either birds which they can eat or hawks or kites which try to steal our chickens.

Personally, I do not shoot and have never kept a gun but for my sons' sakes I decided to buy a gun. When I asked them whether I should buy a shot gun or a .22 rifle, the eldest son preferred a .22 rifle: the reason given by him was that it will be more exciting to hit a bird with a single shot rather than with a number of shots, which give birds no chance to escape. So I bought a .22 rifle and I have never regretted it, because I am proud to say that my elder boys have become fairly good marksmen with the rifle at wild fowl and green pigeons and also hawks and kites which try to steal our chickens.

I hope our so-called sportsmen, who take pride in killing large number of animals by sitting up over salt-licks or waterholes and by shooting with spotlights at night, will take a lesson from this.

L. Rynjah.

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1. Shri Vijay Srivastava, C/o Shri J. K. Srivastava, "Kailash", Nawabganj, Kanpur (Doon School).
2. Shri David Mainwaring, 13 Young Road, Cambrian Hall, Dehra Dun.
3. Shri Jehangir Merwanji, C/o Shri P. F. Merwanji, Pallonji Mansion, 43 Cuufee Parade, Colaba, Bombay—5. (Doon School).
4. Shri Vijay M. Nath, C/o Dr. D. P. Nath, C/o Indian Embassy, Kathmandu, Nepal (Doon School).
5. Shri Naresh Bajaj, C/o Mr. M.R. Bajaj, Irrigation Colony, Varanasi (Doon School).
6. Shri Arun Bakshi, C/o Brig. Ranbir Bakshi, School of Artilery, Deolali (Doon School).

7. Shri Inderjit Bhadwar, C/o Raja P. L. Bhadwar, Ujhani, Distt. Budaun. (U.P.) (Doon School).
8. Kumar Kavindra Narayan Deb, Doon School, Dehra Dun.
9. Shri Shatrujit Singh Dev., Doon School, Dehra Dun.
10. Shri Kamal Nath, Doon School, Dehra Dun.
11. Shri Manjit Singh, ,, ,,
12. Shri Dependra Singh, ,, ,,
13. ,, Michal Dalivi, ,, ,,
14. ,, Surendra Baswan ,, ,,
15. ,, Kanak Singh, ,, ,,
16. ,, Roman Kapur, ,, ,,
17. ,, Sandip Singh, ,, ,,
18. ,, G.S. Chopra, ,, ,,
19. ,, S.C. Gurg, ,, ,,
20. ,, N. Pratap Kr. ,, ,,
21. ,, Ashok Khanna, ,, ,,
22. ,, Sanjit Roy, ,, ,,
23. ,, R. Mukherji, ,, ,,
24. ,, Sayaji Rao, ,, ,,
25. ,, Ajai Kapur, ,, ,,
26. ,, R. Sood, ,, ,,
27. ,, Devraj Singh, ,, ,,
28. ,, R. Midiratha, ,, ,,
29. ,, G. Berry, ,, ,,
30. ,, A. Batra, ,, ,,
31. ,, Pushpindra Singh, ,, ,,
32. ,, K. Chowdhuri, ,, ,,
33. ,, Rommel Verma, ,, ,,
34. ,, Kerjee N. Framji, ,, ,,
35. ,, Gajindra Singh Jhala, ,, ,,
36. ,, Ashok Bajaj, ,, ,,
37. ,, Harinder Grewal, ,, ,,
38. ,, Harijiwan Singh Malik ,,
39. ,, A. Sapra, ,, ,,
40. ,, V. Seth, ,, ,,
41. ,, S. Sahgal, ,, ,,
42. ,, A. Narain, ,, ,,
43. ,, I.S. Mann, ,, ,,

44. Shri A. Shankar, ,, ,,
45. ,, S.N. Pochkanawala, ,, ,,
46. ,, A. K. Agarwal, ,, ,,
47. ,, T. P. Brar, ,, ,,
48. ,, M. Hussan, ,, ,,
49. ,, V. Inder Singh, ,, ,,
50. ,, L. Bhadwar, ,, ,,
51. ,, G. Tondon, ,, ,,
52. ,, R. Mehta, ,, ,,
53. ,, C. V. Singh, ,, ,,
54. ,, G. Arora, ,, ,,
55. ,, Lalit Nath, Medical College, Patna (Bihar).

Our Progress in Membership

October 1959		April 1960	
Patrons	17	Patrons	17
Life Members	14	Life Members	24
Honorary Members ...	7	Honorary Members ...	9
Institutional Members ...	15	Institutional Members ...	17
Affiliated Members ...	2	Affiliated Members ...	3
Ordinary Members ...	95	Ordinary Members ...	112
Educational Members ...	5	Educational Members ...	11
Professional Members ...	27	Professional Members ...	27
Student Members ...	10	Student Members ...	55
	192		275

The Wild Life Preservation Society of India.

I Name, Title and Extent:—

The Society shall be known as the Wild Life Preservation Society of India and shall extend to the whole of India.

INTERPRETATION OF DEFINITION:

In these rules, unless there is something repugnant in the context:

(a) Annual Subscription shall mean the subscription for one year payable from 1st April to 31st March.

(b) Year shall mean the year from 1st April to 31st March.

(c) India for this purpose shall include in the whole of India.

(d) Head Quarters: The Head Quarters of the Society shall be as decided by the General Body of the Society from time to time.

II Objects:—

(a) To promote interest in and impart knowledge regarding the preservation and conservation of all forms of animal life, particularly among the youth of the country.

(b) To co-operate with the Government of India and of the States and with other Societies and Institutions having similar aims and objects.

(c) To assist in enforcing the Forest Acts, Wild Birds and Animals Protection Acts and Rules etc. of States and the Indian Arms Act and Rules and to bring to the notice of the authorities any infringement of the same and to assist in the detection and prosecution of offenders in respect of such laws.

(d) To advise and help the Government and the District authorities in the formation maintenance and protection of Sanctuaries and National Parks, the preservation of wild life in general and rare species in India in particular and in the introduction of exotic species into the country, the rehabilitation of extinct species etc.

(e) To raise funds for the carrying out of the above aims and objects, and to find and maintain museums, reading rooms and libraries of natural history in order to disseminate knowledge regarding wild life.

(f) To carry out publicity and propaganda for the preservation of wild life in India by means of Journals, Bulletins, Films, Filmstrips and other feasible methods.

(g) To assist members of the Society in obtaining shooting and fishing facilities and facilities for viewing and photographing wild life in India.

(h) To carry on such other activities which will serve the above objectives.

We, the several persons whose names and signatures are inscribed below *(having been elected as members of the Executive Committee of the Wild Life Preservation Society of India, according to the Rules and Regulations of the Society)* are desirous of forming a society in accordance with the aims and objects specified in the Memorandum of Association and getting the same registered under the Societies Registration Act 21 of 1860.

Sl. No. *Name* *Occupation* *Address* *Signature.*

Dated the.....day of.....

(Witness to the above signatures)

RULES AND REGULATIONS OF THE WILD LIFE PRESERVATION SOCIETY OF INDIA

I. Designation :—

The Society shall be designated as "The Wild Life Preservation Society of India.".

II. Objects :—

The objects of the Society shall be the same as laid down in para 2 of the Memorandum of Association.

III. Membership :—

The Society shall have the following categories of members for the present and such other categories as may be decided upon by the Executive Committee.

1. Patrons.
2. Honorary Members.

3. Life Members.
4. Ordinary Members.
5. Affiliated Members.
6. Institutional Members.
7. Educational Members.
8. Student Members.
9. Professional Members.
10. Family Members.

1. *Patrons :*—The Executive Committee shall have the power to invite any person, otherwise eligible to be admitted as member of the Society, to be a Patron of the Society, provided he donates a sum of Rs. 500/- or more to the Society.

Patrons have all the rights of membership but will pay no subscription.

2. *Honorary Members :*—Eminent persons who are interested in Sport and in Wild Life who are invited to become members.

Honorary Members will pay no subscription or fees of any kind, but will be otherwise bound by all the Rules and Bye-laws of the Society. They will sign the rolls of membership.

Honorary Members have the right to attend meetings but not to vote. They may hold office in the Society.

3. *Life Members :*—Persons admitted as members and who pay a lump-sum subscription, as may be prescribed from time to time by the Executive Committee of the Society.

4. *Ordinary Members :*—Persons admitted as members and who pay an Entrance Fee and an Annual Subscription as may be prescribed from time to time by the Executive Committee of the Society.

Provided that once a member has paid his Entrance Fee he will not be called upon to pay it a second time. This privilege shall not be available to a member whose membership has at any time come to an end on account of non-payment of dues, moral turpitude, bankruptcy or insanity.

An Ordinary Member shall be entitled to all the rights and privileges of membership including the right of attending and voting at meetings.

Ordinary Members may convert their membership to Life by paying the difference at any time within *five* years or such time as may be decided upon by the Executive Committee of the Society.

5. *Affiliated Members* :—Societies and Associations having the same aims and objectives as the Wild Life Preservation Society of India may be admitted as Affiliated Members of the Society.

Such Affiliated Members will pay an Annual Subscription which will be five times that of an Ordinary Member, or as prescribed from time to time by the Executive Committee of the Society and will have a corresponding number of votes. They will pay no Entrance Fee.

They shall be supplied with as many free copies of the journal of the Society as may be decided upon by the Executive Committee.

6. *Institutional Members* : Institutions such as clubs, military units, schools and colleges interested in sport, wild life or nature may be admitted as Institutional Members of the Society.

Such Institutional Members will pay an Annual Subscription, which will be five times that of an Ordinary Member or as may be prescribed from time to time by the Executive Committee of the Society and will have a corresponding number of votes. They will pay no Entrance Fee. They shall be supplied with as many free copies of the Society's Journal as may be decided by the Executive Committee.

7. *Educational Member* : Persons admitted as members who are Teachers, Instructors, Trainers of any kind. Such persons will pay 50% of what an Ordinary Member pays or as prescribed from time to time by the Executive Committee of the Society.

8. *Student Members* : Persons admitted as members who are students. Such persons will pay 50% of what an Ordinary Member pays, or as prescribed from time to time by the Executive Committee of the Society. Student Members will pay no Entrance Fee.

9. *Professional Members* : Persons admitted as members associated with Forestry, Agriculture, Soil Conservation or Wild Life. Such persons will pay 50% of what an Ordinary Member pays, or as prescribed from time to time by the Executive Committee of the Society.

10. *Family Members* : Applies to Ordinary, Professional and Educational Members. They will pay *twice* the subscription of Ordinary Members and will have a corresponding number of votes. Family Members will pay no Entrance Fee.

PROVISION : Educational, Professional and Family Members may commute their membership for Life by paying *ten* years subscription at any time taking into account the amounts paid upto that time.

IV. Admission of Members :

1. Applications for admission of members shall be made in writing in the prescribed form to the Honorary Secretary, duly proposed and seconded by two members of the Society.

Applications should be sent to the Honorary Secretary of the Society who will put them up on the first opportunity to the Executive Committee for their consideration and approval or rejection as the case may be.

2. Applications for admission to membership of the Society shall not ordinarily be refused except on one of the following grounds, namely :—

(a) That there are reasonable grounds for believing that the applicant, if admitted to membership of the Society, cannot be depended on to observe the laws, rules, or orders promulgated by Government to regulate hunting, shooting and fishing or the Rules and Bye-laws of the Society.

(b) That the applicant is by virtue of his antecedents or personal character unsuitable to be a member of the Society.

NOTE : The Society shall not be bound to disclose to an applicant the reasons for refusing an application for admission.

V. Subscription and Fees :

1. The Executive Committee, may at any time, determine, increase, reduce, alter or modify the subscription and fees payable by members and shall have power to make necessary Bye-laws to control the same.

2. Ordinary Members shall pay their Entrance Fees in *one instalment* but Annual Subscription may be paid in *two instalments*, or as may be prescribed from time to time by the Executive Committee of the Society.

3. Affiliated Members and Institutional Members will pay their Fees and Annual Subscription in one instalment or as prescribed from time to time by the Executive Committee of the Society.

VI. Branches :

The Society shall have Branches in the various Regions of India. Such Branches will have their own autonomous management on the same lines as that of the parent Society, the details of which will be laid down by the Executive Committee of the Society.

A Branch may be constituted by seven members of the Society in a Region or as many as may be decided upon from time to time by the Executive Committee of the Society.

Ten percent of all funds collected by Branches, or as much as may be decided upon from time to time by the Executive Committee including subscription from members in the Region covered by a Branch, will be retained by the Branch.

The jurisdiction of a Branch will be as laid down by the Executive Committee of the Society from time to time.

In the event of a Branch being dissolved all funds at its disposal will revert to the Executive Committee of the Society.

VII. Advisory Council:

There shall be an Advisory Council consisting of not more than ten members of the Society to advise the Executive Committee on all matters of importance as may arise from time to time. This Advisory Council shall be formed from among distinguished members genuinely interested in wild life and its preservation and the Executive Committee will have the power to invite such members to join it.

Members of the Advisory Council will hold office for five years at a time but are eligible for further terms of office at the discretion of the Executive Committee.

Members of the Advisory Council will be sent notices of meetings and copies of the proceedings of the Executive Committee and of all Special Meetings held, as well as of any important proposal or step undertaken by the Society or its management, for their information and comments or advice if any.

VIII. Management of the Society:

1. *Executive Committee*: The management of the affairs of the Society and of its Branches, shall be entrusted to an Executive Committee which may frame rules for the conduct of the business of the Society, of its Branches and of its own business, not inconsistent with the rules and objectives of the Society. The Executive Committee shall remain in office for a term of two years.

The Executive Committee shall have full power and authority to do all acts, matters, things and deeds which may be expedient or necessary for the purpose of the Society.

The Executive Committee may from time to time appoint any Committee or Sub-Committee as they think fit and may delegate any of its powers to such committees and prescribe the functions and procedure of any such committees.

All acts done by any meeting of the Executive Committee, or by a Committee or Sub-Committee appointed by the Executive Committee or by any other person acting as a member of any Committee or Sub-Committee, shall not withstanding that if be afterwards discovered that there was some defect in the appointment of any such Committee or Sub-Committee, or persons acting as aforesaid, or that they or any of them were or was disqualified, be as valid

as if every such person had been duly appointed and was qualified to be a member of any Committee or Sub-Committee.

Any interpretation by the Executive Committee of the rules and regulations of the Society for the time being shall be final and binding upon the members.

The Executive Committee, unless otherwise determined by the Society in General Meeting, shall consist of not less than 20 and not more than 30 members, of whom there shall be one President, six Vice-Presidents, one Honorary Secretary, one Honorary Treasurer and two or more Honorary Assistant Secretaries.

The Executive Committee may co-opt from amongst the members of the Society any person to assist it in its deliberations.

One of the Vice Presidents who will normally be incharge of the day-to-day work of the Society will be known as the Executive Vice-President.

The Quorum for a meeting of the Executive Committees shall be *five members.* The notice for meetings of the Executive Committee will be ordinarily 10 days. The Executive Committee will meet at least *once every six months.*

The minutes of every meeting of the Executive Committee shall be read at the next meeting of the Executive Committee and shall be confirmed with or without amendments.

The Chief Game Wardens or Wild Life Officers of such States as may be decided upon in a General Body Meeting, the local Honorary Regional Secretary of the Indian Board for Wild Life, the local District Magistrate, Divisional Forest Officers and Superintendent of Police, will be ex-officio members of the Committee provided they are made Honorary Members of the Society. All other members will be elected by ballot at the Annual General Meeting of the Society.

A list of names, addresses and occupations of the members of the Executive Committee must be filed with the Registrar of Joint Stock Companies once every year in the month of January.

IX. Rules of Business.

(1) *Elections.* The members of the Executive Committee shall be elected at the Annual General Meeting of the Society which will be held within 3 months of the termination of the official year and not more than 15 months of the holding of the last preceding meeting.

The President, Vice-Presidents, and Office Bearers will be elected at the first meeting of the Executive Committee from among the members of the Executive Committee and by the latter.

The outgoing Executive Committee, after receiving proposals for election, if any, from the members of the Society, shall circulate a panel of names to all members of the Society, along with the notice of the Annual General Meeting. The new Executive Committee will be elected from this panel.

Four of the posts of Vice-Presidents will be roated each year so as to take in by turn all the Indian regions within the Society's jurisdiction.

Sub-Committees : There will be for the present, *four* Sub-Committees: Legislation, Fishing, Publicity and Education and Propaganda. The Executive Committee shall be at liberty to create a Sub-Committee for particular purposes at any time.

A Sub-Committee may co-opt any member of the Society to assist it in its work.

The quorum for the meeting of a Sub-Committee will be 1/3rd of its strength and the notice for meetings will ordinarily be 7 days.

At a General Body Meeting no member will be entitled to vote unless be has paid all his dues to the Association.

Voting at General Body Meetings will be by show of hands unless a poll is demanded by the Chairman (or by at least five members present in person and entitled to vote) when a secret ballot shall be taken.

A member who is unable to attend at a General Body Meeting may authorise another member entitled to vote to act for him by a properly *signed* and *stamped proxy* which will be issued by the Honorary Secretary to members.

(2) *Annual General Meeting :* Business at the Annual General Meeting will be to consider the Audited Accounts and the Annual report of the Society, to elect every two years a new Executive Committee, to appoint Auditors, and to transact such other business which may be brought before it.

The Annual General Meeting will be held once every year in the month of April or May, at such time and place as the Executive Committee may determine.

Such Annual General Meetings shall be deemed to be *Ordinary* General Meetings. All General Meetings other than the Annual General Meeting shall be Extra-ordinary General Meetings and shall be deemed to be *Special* General Meetings.

For General Meetings of the Association at least *21 days* notice shall be required and the Quorum shall consist of *ten members of the Society.* In the event of a Quorum not being available the meeting will be held the next day at the same place and time without further notice.

Special General Meetings: An Extra-ordinary or Special General Meeting may be convened at any time by the Executive Committee or on a requisition made in writing by at least *10 members* eligible to vote at a meeting. Provided that the decisions of such Special General Meetings will be required to be confirmed by a 2nd Special General Meeting, duly convened at an interval of one month after the former meeting. The Quorum shall consist of 15 members of the Society.

No proposition shall be considered to have been carried at such meetings except by consent of 3/5ths of the members of the Society, delivered in person or by proxy, at the meeting.

X. Identity:

Every member of the Executive Committee or every member for the time being of the Society shall be indemnified out of the funds of the Society against all losses and expenses incurred in the discharge of his duties, except such as shall happen through his own wilful negligence or dishonesty and each one shall be chargeable only for such money, funds or property as he shall himself actually receive in the discharge of his duties, unless the same shall happen through his own dishonest or wilful negligence.

Any member of the Society acting in contravention of the objects of the Society or in any manner detrimental to the interests of the Society or found guilty of misconduct shall be liable for expulsion by the Executive Committee. No such action shall be taken unless such member shall have been previously given an opportunity of tendering his explanation or resignation. No appeal shall be against such decision. A person thus expelled shall not be eligible for re-admission.

XI. Alterations and Amendments:

No rules shall be amended or repealed except with the consent of a *three-fifths majority* of members entitled to vote at a meeting of the Society, voting at an Extra-ordinary General Meeting of the Society duly convened for the purpose.

Such decision must be confirmed at a second Special General Meeting duly convened at an interval of one month.

XII. Winding Up:

Three-fifths of the members of the Society entitled to vote at a meeting of the Society may, at any time, determine that it shall be dissolved at an Extra-ordinary General Meeting of the Society duly convened for the purpose.

एक मृगनी का संदेश

आज एक दीर्घकालीन अवधि के उपरांत मैं पुनः अपना संदेश कहना चाहूँगी। वह यह कि पूर्व युगों में मैं आपकी सहचरी थी—काव्य की अनुप्रेणिका थी। और यही कारण था कि मेघदूत जैसे महाकाव्य आपकी मानवता को प्राप्त हुए। मैं सती सीता की सखी थी तो विरहिणी शकुन्तला की सान्त्वना व कामिनी की तुलना थी तो रसिकों की शृङ्गार, केशव प्रभृत कवियों की काव्य-नायिका भी मैं ही थी, किन्तु उन्हीं के वंशज और महासभ्य कहलाने का दम्भ भरने वाली आपकी वह बीसवीं सदी आज मेरी चंचलता, भोलापन, सौन्दर्य आदि को यानि प्रकृति को जाज्वल्यमान प्रतिमूर्ति की एक भोज्य-सामग्री मात्र ही समझ रहे हैं। आज मैं अपने अन्तरतम के भावों की उमड़ती हुई विभीषिका को तिरोहित नहीं कर सकती हूँ। और अपने समकालीन सखा—एक वन विभाग कर्मचारी के माध्यम से आपकी सभ्यता एवं समाज को एक दुःखद घटना, जो कि अनवरत गति से, भयंकर से भयंकर होती जा रही है, सुनाती हूँ।

उस दिन प्रातःकाल, जब मैं एक घास के वक्ष की ओट से अपने एकमात्र बालक को उठा कर हृदय में श्री भास्कर देव का सौन्दर्य निहार—वन-देवी की स्तुति कर ही रही थी कि एकाएक एक भयंकर गर्जन ने मेरा रोम-रोम कम्पायमान कर दिया। और मैंने तीक्ष्ण दृष्टि घुमाई तो सामने दो दानवरूपी कराल मानव दृष्टिगत हुए। उस भयावह काल में तो मैं भागी किन्तु देखा कि.....मेरा एकमात्र पुत्र तड़प-तड़प कर दम निकाल रहा है, हाथ-पाँव छटपटा रहा, हाय उस कराल अवसान में मैं तो कुछ भी न कर सकी किन्तु हृदय के लाल का जवान होने के पूर्व ही इस प्रकार का असामयिक अंत देखकर मैं नेत्र विहीन एवं निष्प्राण भी न हो सकी। शैव्या जानती थी —पुत्र वियोग, कोटि-कोटि अभागी मातायें जानती हैं—पुत्र विछोह और आखिर मैं भी तो माता ही थी उस अपरिपक्व शावक की जो आज मानव के कराल हाथों मारा गया।

पूर्व युगों में आपके पूर्वज आते थे हमसे सामंजस्य स्थापित करने व मेरे सहचरियों से उन्हें आध्यात्म-शक्ति प्राप्त होती थी, उन्हें योग व ज्ञान-शक्ति प्राप्त होती थी तो महाकाव्य की रचना की महाशक्ति भी प्राप्त होती थी। मेरी अन्तरङ्ग सखी शकुन्तला का पुत्र भरत भी हमारा सखा था तो मेरे पुत्र भी उसके एकमात्र बालसखा थे। श्रीराम—विरही राम को सीता का पता बताने में एवं पुनर्मिलन में भी हमारी ही वन्य जातियाँ एकमात्र सहायक हुईं। अब प्रश्न यही उठता है कि उनके ही पुत्र व वंशज आज हमारे सखा एवं रक्षक नहीं वरन् शत्रु व भक्षक क्यों बन गये हैं? उक्त प्रश्न का समाधान विचारक पूर्ववत् ही कर गये हैं व उनकी चेतावनी प्रत्येक युग व काल के महा-पुरुषों ने प्रतिध्वनि की है। उन्होंने कहा है कि जब-जब किसी भी व्यक्ति, समुदाय, जाति व राष्ट्र का अन्त होता है तो उसमें पाशविकता जागृत होती है और इस पाशविकता को ही दूसरे शब्दों में हम "हिंसा" व महापाप कह सकते हैं। अगर हम उपरोक्त शक्ति का स्पष्टीकरण करना चाहें तो हमारे रामायण काल में रावण के समान तेजस्वी, महापण्डित एवं विशाल शक्तिवान सम्राट का अन्त उसकी पाशविकता ही थी। वन्य-प्राणियों जिनमें ऋषि-महर्षि वर्ग भी था, का अभिशाप मात्र ही या जिसकी प्रचण्ड विभीषिका ने पूर्णरुपेण भस्मीभूत कर दिया था, उस राक्षसराज को, महाभारत काल में भी भीम, अर्जुन, अभिमन्यु, भीष्म व द्रोणाचार्य सदृश महामानवों का पूर्ण-

रुपेण लुप्त होना भी एकमात्र "हिंसा" पर ही आधारित है। आज उनकी शक्ति व पराक्रम केवल कपोल कल्पित सम ही प्रतीत होती है। वर्तमान काल में भी हिटलर व मुसोलिनी सदृश कई आततायी हुए हैं और उनका भी घृणास्पद अन्त ही हुआ तथा उनके अनेकानेक चेले आज भी घोर वन-क्षेत्र में जाकर उत्पात मचाने की प्रवृति अपनाये हुए हैं, किन्तु मैं अब भी समय रहते उनको चेतावनी देना चाहती हूं कि पाप का घड़ा जब भर जायेगा तो यह अवश्य ही फूटेगा—यह कुदरती नियम है—ईश्वरीय विधान है।

अब प्रश्न है कि किस प्रकार पापी पुरुष पुनः निष्पाप एवं निरापद हो सकता है? इसका भी स्पष्ट प्रत्युत्तर है, "प्रायश्चित"। एक ऐतिहासिक घटना पटल पर स्पष्ट अंकित है कि अशोक एक क्रूर एवं स्वेच्छाचारी नृशंस सम्राट था। केवल कलिङ्ग विजय की भावना मात्र से ही उसने लक्ष-लक्ष मानवों को तलवार के घाट उतरवा कर भयंकर अट्टहास किया, तिस पर भी आज वही क्रूर आक्रामक सम्राट "शक्ति का अग्रदूत" के पुनीत रूप में ही व्यक्त होता है। इसका रहस्य यही है कि उसने अपने कुकृत्यों को स्मरण कर प्रायश्चित किया व परम पिता से विनीत प्रार्थना की कि उसकी भयंकर गलती को क्षमादान किया जाय और अन्तर्यामी भगवान ने उसकी सही-सही भावना का पूर्ण आदर किया और उसने पुनः अपनी शपथों का पूरा-पूरा एवं अक्षरशः पालन किया व सदैव "अहिंसा परमोधर्मः" के ही सन्मार्ग पर अग्रसर हुआ। उक्त घटना को चरितार्थ करने का एकमात्र प्रयोजन यही है कि वे पुरुष, जो कल तक हिंसा कर चुके हैं, कृपया परवर दिगार के दरबार में नतमस्तक होकर अपने कुकृत्यों के विषय में क्षमादान की याचना करें। मैं उन्हें विश्वास दिलाती हूँ कि वह अवश्य ही उन्हें अभयदान एवं वरद्-हस्त प्रदान करेगा।

क्रॉस पर चढ़ते समय प्रभु ईशा ने भी कहा था कि "हे पिता! इन अबोध बालकों की भूल को क्षमा करना", और मैं भी उस स्वर्गीय पिता से अनुरोध करूंगी कि वह भी उन प्राणियों को, जिन्होंने मेरे एकमात्र पुत्र का हनन किया व मेरे ही समान अन्य माताओं की गोद को सूना किया तथा माँग को सिंदूर-विहीन किया, पूर्ण क्षमादान करते हुए "अहिंसा परमोधर्मः" रूपी सन्मार्ग का पथिक बनावे।

तमसो मां ज्योतिर्गमय।
ॐ शांति-शांति-शांति
मानव मात्र की शुभाभिलाषिणी,
एक मृगनी।

WILD LIFE PRESERVATION SOCIETY OF NORTHERN INDIA

Telephone :—
Telegrams :—"**Cheetal**"

7, Astley Hall, Dehra Dun,
1st August, 1959.

The Directors of Education,
(All States of Northern India).

Subject : **Corbett Memorial Prize on Wild Life.**

Dear Sir,

To commemorate the memory of the late Jim Corbett, the renowned sportsman and protagonist of wild life conservation and to encourage interest in wild life in India, the Wild Life Preservation Society of Northern India has, with the kind help of Miss Maggie Corbett his sister, decided to award an annual prize for the best piece of practical work done to promote wild life, to any student, or group of students, of the senior classes (IX, X and XI) of any school in Northern India.

The project to be carried out may consist, among other similar subjects, of one or more of the following :—

(i) Observation of two pairs of birds throughout their complete breeding cycle.

(ii) Photographing wild life (at least two subjects).

(iii) Measuring, recording and taking plaster casts of foot-prints of two wild animals or birds.

(iv) Observation of the behaviour and habits of at least two species of wild animals or birds over a period of nine to twelve months.

(v) Putting up nesting boxes, planting fruit trees, making bird-baths, making dams for storage of water for animals and fish-breeding etc.

Any project submitted for the award of the prize should be the work of an individual student, or of a group of students not exceeding five, and should be attested as such by the head of the institution.

All entries should reach the undersigned by the 31st August, 1960. The prize will be awarded in October, 1960.

Students or institutions requiring any further details of the subjects mentioned above may write to the undersigned.

I shall be very grateful if you will bring the above details to the notice of the District Inspectors of Schools under you, for wide circulation among schools. I send 200 copies of this letter, which may kindly be circulated to schools in your jurisdiction. If more copies are required, the undersigned will be glad to supply them.

Thanking you to assist us in this effort to propagate interest in wild life.

I am, yours faithfully,

(Sd.) P. D. STRACEY,
for Honorary Secretary,
Wild Life Preservation Society of Northern India.

इस प्रकार के २००० इश्तहार 'विश्व कृषि मेला', देहली में बाँटे गये !

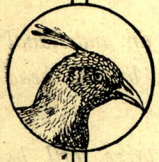
शेर बबर

गैंडा

गौर

जंगली भैंसा

कस्तूरा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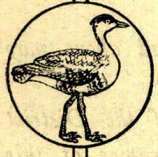
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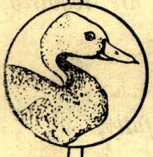
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महासीर

मूक वन्य निवासियों के प्रति विचार !

वन्य पशु-पक्षी तथा मछलियाँ } मनुष्य जाति से कुछ नहीं माँगती, तथापि हमें—

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* सींग
* चमड़ा
* हड्डियाँ
* शिकार
* रोमांच
* सजीव सौंदर्य

तथा

प्राकृतिक संतुलन में सहायता देती हैं ।

इन चमकते हुये सजीव रत्नों के बिना

जननी जन्मभूमि शोभाविहीन हो जायेगी ।

वन्य पशु-पक्षियों को बेतहाशा मारकाट से बचाइये ।

और

उत्तरीय भारत वन्य पशु-पक्षी सोसाईटी,

७, एशले हॉल, देहरादून (यू० पी०) में सम्मिलित होइये ।

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(See Rule 8)

1.	Place of publication	....	.... 7, Astley Hall, Dehra Dun.
2.	Periodicity of its publication	...	... Half yearly.
3.	Printer's Name	....	.... Shri Tara Chand Sharma,
	Nationality	....	.... Indian.
	Address	....	.... Dun Printing House. Rajpur Road, Dehra Dun.
4.	Publisher's Name	....	.... Mr. R. L. Holdsworth,
	Nationality	....	.... English.
	Address	....	.... 7, Astley Hall, Dehra Dun.
5.	Editor's Name	....	.... Mr. R. L. Holdsworth,
	Nationality	....	.... English.
	Address	....	.... 7, Astley Hall, Dehra Dun.
6.	Name and address of individuals who own the newspaper and partners or shareholders holding more than one percent of the total capital.	...	.... Wild Life Preservation Society of Northern India.

I, R. L. Holdsworth, hereby declare that the particulars given above are true to the best of my knowledge and belief.

R. L. Holdsworth
Signature of Publisher

Dated 30th October, 1958.

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(See Rule 8)

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THE CHEETAL

JOURNAL OF THE WILD LIFE PRESERVATION SOCIETY OF NORTHERN INDIA

Vol. 2 APRIL, 1960 No. 2

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Edited and Published by R. L. Holdsworth, No. 7, Astley Hall, Dehra Dun and Printed by T. C. Sharma at the Dun Printing House, Rajpur Road, Dehra Dun.